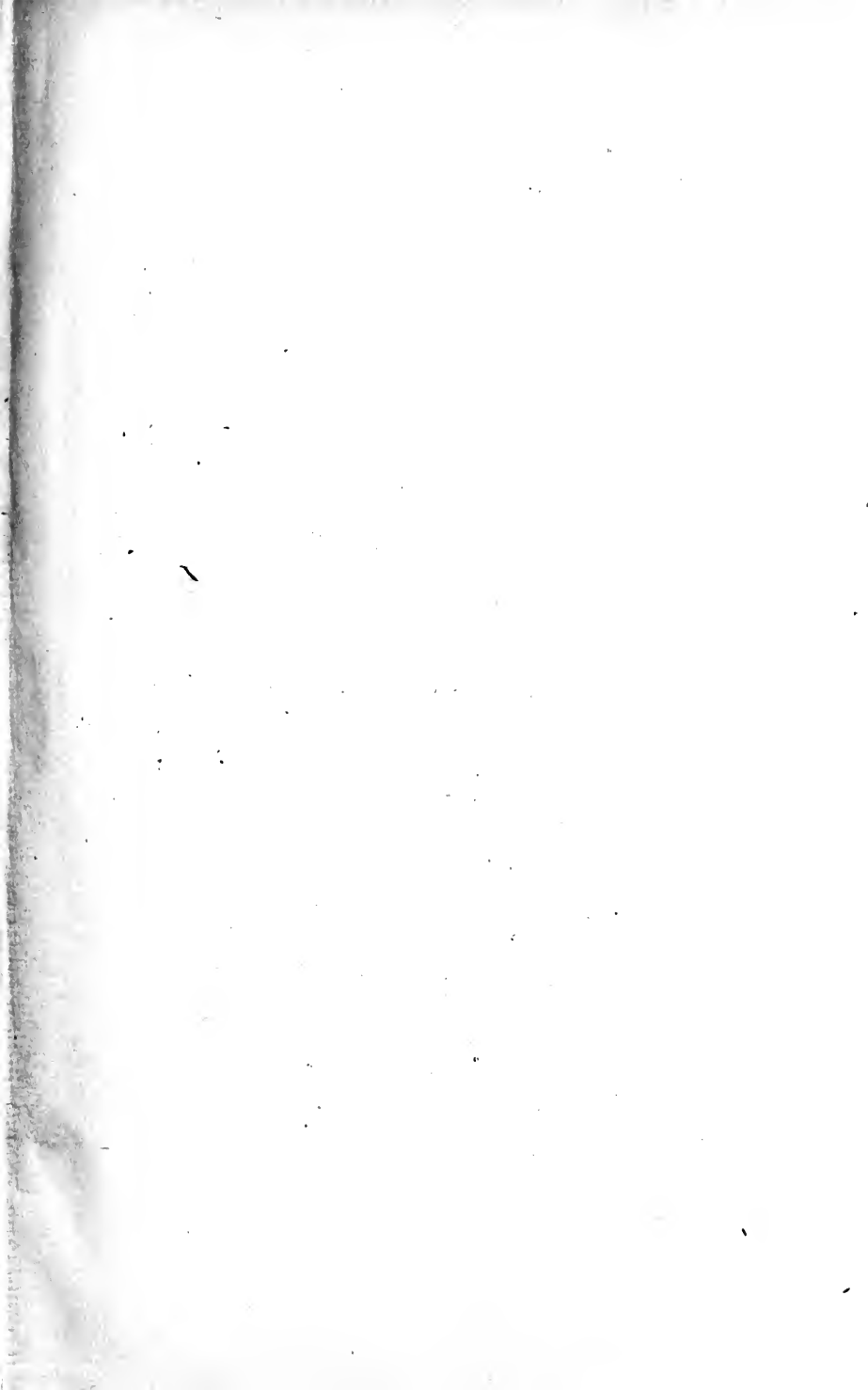
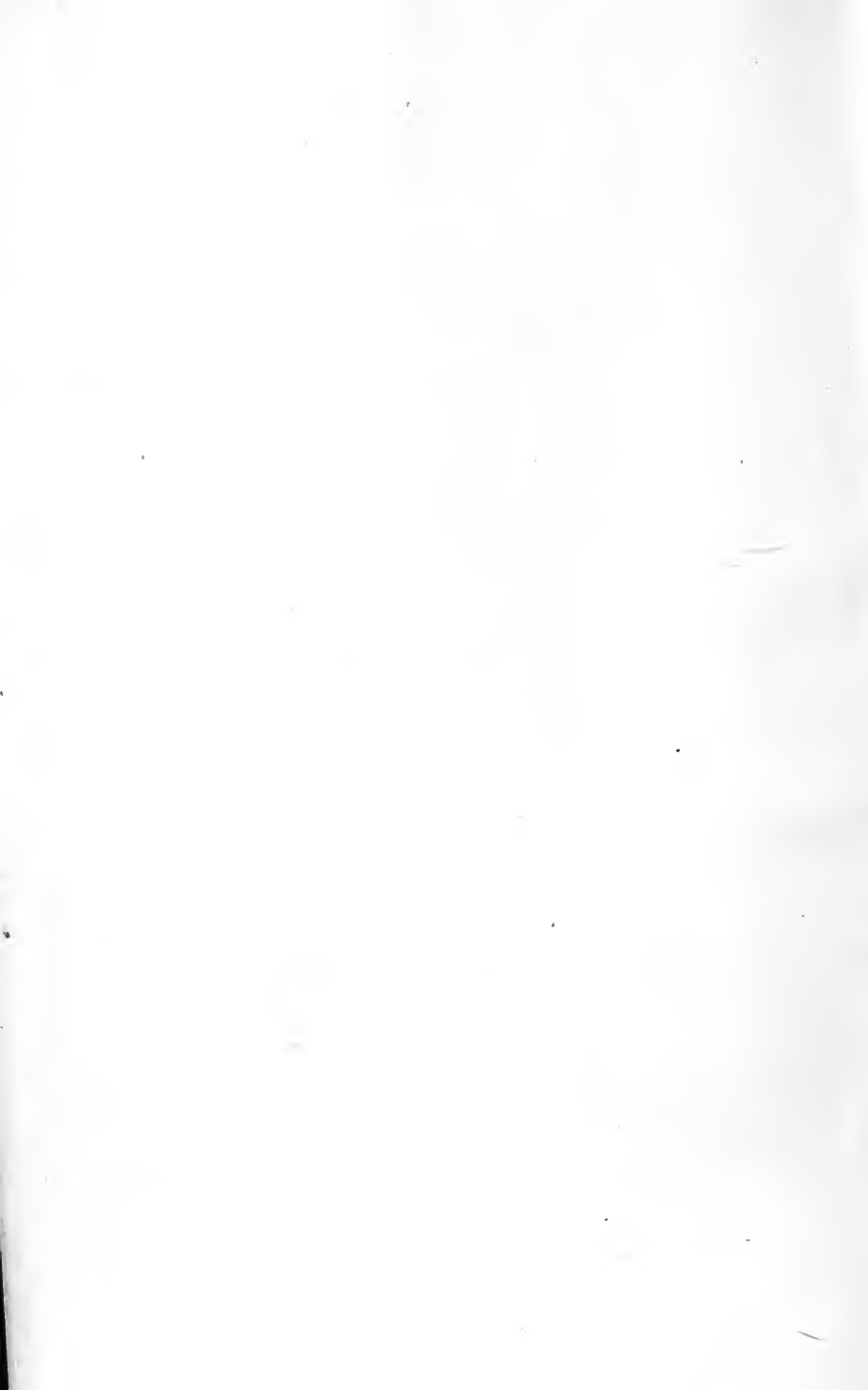


CAVALRY IN WAR
AND PEACE







CAVALRY
IN WAR AND PEACE

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CAVALRY IN WAR AND PEACE

BY GENERAL
FREIHERR VON BERNHARDI

TRANSLATED FROM THE GERMAN BY
MAJOR G. T. M. BRIDGES, D.S.O.
4TH (ROYAL IRISH) DRAGOON GUARDS

WITH A PREFACE BY
GENERAL SIR J. D. P. FRENCH
G.C.B., G.C.V.O., K.C.M.G.



U.S. CAVALRY ASSOCIATION
FORT LEAVENWORTH, KANS

1910

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P R E F A C E

ALL British soldiers will welcome this excellent translation by Major Bridges of a new work by General von Bernhardt, whose intimate knowledge of cavalry and brilliant writings have won for him such a great European reputation.

Some prominence has lately been given in England to erroneous views concerning the armament and tactics of cavalry. General von Bernhardt's book contains sound doctrine on this subject, and will show to every one who has an open mind and is capable of conviction by reasoned argument how great is the future rôle of cavalry, and how determined are the efforts of the great cavalry leaders of Europe to keep abreast with the times, and to absorb, for the profit of the arm, every lesson taught by experience, both in peace and war.

In all theories, whether expounded by so eminent an authority as General von Bernhardt or by others who have not his claims to our

attention, there is, of course, a good deal that must remain a matter of opinion, and a question open for free and frank discussion. But I am convinced that some of the reactionary views recently aired in England concerning cavalry will, if accepted and adopted, lead first to the deterioration and then to the collapse of cavalry when next it is called upon to fulfil its mission in war. I therefore recommend not only cavalry officers, but officers of all arms and services, to read and ponder this book, which provides a strengthening tonic for weak minds which may have allowed themselves to be impressed by the dangerous heresies to which I have alluded.

* * * * *

Is there such a thing as the cavalry spirit, and should it be our object to develop this spirit, if it exists, to the utmost, or to suppress it? General von Bernhardt thinks that this spirit exists and should be encouraged, and I agree with him. It is not only possible but necessary to preach the Army spirit, or, in other words, the close comradeship of all arms in battle, and at the same time to develop the highest qualities and the special attributes of each branch. The particular spirit which we seek to encourage is different for each arm. Were we to seek to

endow cavalry with the tenacity and stiffness of infantry, or to take from the mounted arm the mobility and the cult of the offensive which are the breath of its life, we should ruin not only the cavalry, but the Army besides. Those who scoff at the spirit, whether of cavalry, of artillery, or of infantry, are people who have had no practical experience of the actual training of troops in peace, or of the personal leadership in war. Such men are blind guides indeed.

Another reason why I welcome this book is because it supplies a timely answer to schoolmen who see in our South African experiences, some of which they distort and many of which they forget, the acme of all military wisdom. It is always a danger when any single campaign is picked out, at the fancy of some pedagogue, and its lessons recommended as a panacea. It is by study and meditation of the whole of the long history of war, and not by concentration upon single and special phases of it, that we obtain safe guidance to the principles and practices of an art which is as old as the world.

It is not only the campaigns which we and others have fought which deserve reflection, but also the wars which may lie in front of us. General von Bernhardi does not neglect the lessons of

past wars, but he gives the best of reasons for thinking that the wars in South Africa and Manchuria have little in common with the conditions of warfare in Europe. We notice, as we read his book, that he has constantly in his mind the enemies whom the German Army must be prepared to meet, their arms, their tactics, and their country, and that he urges his comrades to keep the conditions of probable wars constantly before their eyes.

It passes comprehension that some critics in England should gravely assure us that the war in South Africa should be our chief source of inspiration and guidance, and that it was not abnormal. All wars are abnormal, because there is no such thing as normal war. In applying the lessons of South Africa to the training of cavalry, we should be very foolish if we did not recognise at this late hour that very few of the conditions of South Africa are likely to recur. I will name only a few of them. The composition and tactics of the Boer forces were as dissimilar from those of European armies as possible. Boer commandos made no difficulty about dispersing to the four winds when pressed, and re-uniting again some days or weeks later hundreds of miles from the scene of their last encounter. Such

tactics in Europe would lead to the disruption and disbandment of any army that attempted them.

Secondly, the war in South Africa was one for the conquest and annexation of immense districts, and no settlement was open to us except the complete submission of our gallant enemy. A campaign with such a serious object in view is the most difficult that can be confided to an army if the enemy is brave, enterprising, well-armed, numerous, and animated with unconquerable resolve to fight to the bitter end. I am not sure that people in England have ever fully grasped this distinctive feature of our war with the Dutch Republics. Let me quote the opinion of the late Colonel Count Yorck von Wartenburg on this subject. In his remarkable book "Napoleon as a General," Count Yorck declares that if, in the campaign of 1870-71, the absolute conquest and annexation of France had been desired, German procedure would not have been either logical or successful, and that the Germans would have failed as completely as Napoleon failed in Spain. But Count Yorck shows that when plans have a definite and limited object in view—namely, to obtain peace on given conditions—the situation is altered, Count Yorck shows that

the German plans in 1870-71 were perfectly appropriate to this limited aim, and that they were therefore successful. The very serious task which British policy imposed upon British strategy in South Africa must never be forgotten.

Thirdly, we did not possess any means for remounting our cavalry with trained horses, such as we are endeavouring to secure by our new system of cavalry dépôts and reserve regiments. After the capture, in rear of the army, of the great convoy by De Wet, our horses were on short commons, and consequently lost condition and never completely recovered it.

Lastly, owing to the wholesale and repeated release of prisoners who had been captured and who subsequently appeared again in the field against us, we were called upon to fight, not, as is stated, 86,000 or 87,000 men, but something like double that number or more, with this additional disadvantage, that the enemy possessed on his second or third appearance against us considerable experience of our methods, and a certain additional seasoned fitness.

Nevertheless we are now invited to throw away our cold steel as useless lumber owing to some alleged failures of the cavalry in South Africa. Were we to do so, we should invert the

rôle of cavalry, turn it into a defensive arm, and make it a prey to the first foreign cavalry that it meets, for good cavalry can always compel a dismounted force of mounted riflemen to mount and ride away, and when such riflemen are caught on their horses they have power neither of offence nor of defence and are lost. If, in European warfare, such mounted riflemen were to separate and scatter, the enemy would be well pleased, for he could then reconnoitre and report every movement and make his plans in all security. In South Africa the mounted riflemen were the hostile army itself, and when they had dispersed there was nothing left to reconnoitre; but when and where will these conditions recur?

Even in South Africa, grave though were the disadvantages under which our cavalry laboured from short commons and overwork, the Boer mounted riflemen acknowledged on many occasions the moral force of the cold steel, and gave way before it. The action at Zand River in May 1900 was a case in point, and I only quote a personal experience because the venerable maxim that an ounce of practice is worth a ton of theory has still a good deal to be said for it. The rôle of the Cavalry Division on the day to which I refer was to bring pressure to bear on the right

flank of the Boer army in order to enable Lord Roberts to advance across the river and attack the main Boer forces. Having crossed the river to the west of the Boers, we determined, with the inner or easterly brigade, to seize an important kopje lying on the right flank of the Boer position, and, pivoting upon this, to throw two brigades against the right flank and rear of the enemy.

The Boers told off a strong force of picked mounted riflemen to oppose this movement, which they expected. The kopje was seized by the inner brigade, and the brigade next to it made some progress; but the Boer mounted riflemen attacked the flank brigade to the extreme west, and began to drive it back. I galloped from the kopje to the outer brigade with the thought that either every idea which I had ever formed in my life as to the efficacy of shock action against mounted riflemen was utterly erroneous, or that this was the moment to show that it was not. On reaching the outer brigade I ordered it to mount and form for attack. All ranks were at once electrified into extraordinary enthusiasm and energy. The Boers realised what was coming. Their fire became wild, and the bullets began to fly over our heads. Directly the advance began, the Boers hesitated, and

many rushed to their horses. We pressed forward with all the very moderate speed of tired horses, whereupon the whole Boer force retired in the utmost confusion and disorder, losing in a quarter of an hour more ground than they had won during three or four hours of fighting. A cavalry which could perform service like this; which held back, against great numerical odds, the Dutch forces at Colesberg; which relieved Kimberley; which directly made possible the victory at Paardeberg by enclosing Kronje in his entrenchments; which captured Bloemfontein, Kroonstadt, and Barberton, and took part successfully in all the phases of the long guerilla war and in countless drives, can afford to regard with equanimity the attacks of those who have never led, trained, nor understood the arm to which I am proud to have belonged.

* * * * *

I have already, in an introduction to another book by General von Bernhardi, expressed my high sense of the general soundness of his teaching. Were I to do full justice to the merits of this new work, I should be compelled to make long extracts and to repeat matter which every reader will perhaps do better to search for and select for himself. But I would invite

particular attention to the general's remarks on the subjects of reconnaissance, the cavalry fight, the combination of fire and shock, the divisional cavalry, the rôle of the strategical cavalry, training, and organisation. The masterly summary of the qualifications which should be possessed by squadron and patrol leaders is, in particular, an extremely valuable contribution to the study of a most important subject.

The general does not always agree with the Regulations of his own Army, and he is specially in conflict with them when he recommends raids by cavalry corps against the enemy's communications. My opinion upon this point is that every plan should be subordinate to what I consider a primary necessity—namely, the absolute and complete overthrow of the hostile cavalry. So long as that cavalry remains intact with its *moral* unshaken, all our enterprises must of necessity be paralysed. The successful cavalry fight confers upon the victor the command of ground, just in the same way that successful naval action carries with it command at sea. For effective enterprises in either sphere command is absolutely necessary, and can only be obtained by successful battle, whether on land or sea.

I agree generally with the German Regulations

when they suggest that raids against communications should not divert cavalry from their true battle objective, and consequently I must venture to differ from the author on this point, though I do not approve of all that the German Regulations say concerning the employment of cavalry in battle. The opinion which I hold and have often expressed is that *the true rôle of cavalry on the battlefield is to reconnoitre, to deceive, and finally to support*. If the enemy's cavalry has been overthrown, the rôle of reconnaissance will have been rendered easier. In the rôles of deception and support, such an immense and fruitful field of usefulness and enterprise is laid open to a cavalry division which has thought out and practised these rôles in its peace training and is accustomed to act in large bodies dismounted, that I cannot bring myself to believe that any equivalent for such manifest advantages can be found even in the most successful raid against the enemy's communications by mounted troops.

I entirely agree with General von Bernhardt's conclusion that very important duties will fall to the lot of the divisional cavalry in war, and that the fulfilment of these duties has become more difficult of late years. The necessity for,

and the value of, divisional cavalry are often not properly appreciated. What the strategical cavalry is to the Army in the greater sphere, the divisional cavalry is to the division in the lesser.

Most cavalry soldiers of good judgment will agree with the lucid arguments of the author on the subject of cavalry armament. It is suggested to us, by critics of the cavalry, that the lance is an impediment to dismounted action. If this difficulty ever existed, it has been overcome by the method of carrying the lance which has been adopted and practised with marked success for the past two years. It is also objected by the same critics that a thin bamboo pole, carried by the side of a mounted man, will hinder him in reconnaissance and reveal his position to the enemy. The mere statement of this argument absolves me from the duty of replying to it.

General von Bernhardt very wisely says that it is not a question whether cavalymen should fight mounted or dismounted, but whether they are prepared and determined to take their share in the decision of an encounter and to employ the whole of their strength and mobility to this end. In our training during the last few years I have endeavoured to impress upon all ranks

that when the enemy's cavalry is overthrown, our cavalry will find more opportunities of using the rifle than the cold steel, and that dismounted attacks will be more frequent than charges with the *arme blanche*. By no means do I rule out as impossible, or even unlikely, attacks by great bodies of mounted men against other arms on the battlefield. But I believe that such opportunities will occur comparatively rarely, and that undue prominence should not be accorded to them in our peace training, to the detriment of much more solid advantages which may be gained by other means.

I think that every one who reads this book will understand that the sphere of action of cavalry is steadily widening, and is, at the same time, making increased demands as the years go on upon all ranks of the arm. Those who wish to recall what cavalry has done in the past, should read and re-read "The Achievements of Cavalry," by Field-Marshal Sir Evelyn Wood, one of the very few soldiers in the Army who has taken part as a combatant in European warfare. Sir Evelyn Wood's war record probably surpasses that of any other officer in the Army. His knowledge of horses and his horsemanship are second to none, and though seventy-two years

of age, he is still one of the hardest and straightest riders to hounds in England. It should be a constant encouragement to the cavalry that such an experienced and sagacious leader should entertain such a firm faith in the destinies of an arm, with which he is so thoroughly conversant.

* * * * *

A few words in conclusion. We hear it said, and see it written, that we ought not to accept any guidance from military Europe, because our own experience of war has been so considerable that we can learn nothing from Europe which we do not know better ourselves. The truth is, that since the Crimean War we have had little or no experience of the kind of effort which will be required of us when next we meet the trained army of a European Power. In deluding ourselves with the false notion that our campaigns of the last fifty years represent the sum of military wisdom, we merely expose our ignorance and conceit, and do our utmost not only to cause disaster, but to invite it.

The cavalry soldier must not be misled by these appeals of ignorance to vanity. Let him continue to study profoundly the training, tactics, and organisation of the best foreign cavalry.

Let him reflect long and deeply upon the opinions of such acknowledged authorities as Field-Marshal Sir Evelyn Wood and General von Bernhardi. Let him keep himself abreast with every change in the tendencies of cavalry abroad, so that he may help us to assimilate the best of foreign customs to our own. Finally, let him realize the great intellectual and physical strain that modern war will impose upon the cavalry, and let him preserve the *mens sana in corpore sano*, that equable balance between study and action, which alone will enable him to rise superior to every difficulty in the great and honourable calling to which he belongs.

J. D. P. FRENCH.



TRANSLATOR'S NOTE

*I*N placing this translation of General von Bernhardt's work at the service of the officers of the Army, I take the opportunity of drawing attention to the educational value of the large quantity of military literature published abroad, particularly in France and Germany. Translations into English of works of this kind are rare and often so belated as to have lost much of their value by the time they are produced.

Modern developments in means of communication and intercourse are daily bringing us into closer touch with the Continent of Europe, and there can be no doubt that the rising generation of officers would do well to make themselves masters of the not over-difficult art of reading French and German, that they may be able to appreciate such works and keep themselves abreast of the times. They will find such knowledge of the greatest service, not only in the profession of arms, but in the course of everyday life.

My thanks are due to Major W. H. Greenly, D.S.O., 12th Lancers, for his kind and able assistance in correcting proofs.

T. B.



CONTENTS

INTRODUCTION	PAGE 1
------------------------	-----------

The altered rôle of cavalry in modern war, p. 1; reconnaissance from balloons, p. 3; action of the independent cavalry in battle, p. 4; want of war experience and tradition, p. 5; modern cavalry in a transition stage of development, p. 5; theoretical forecast and peace experience, p. 6; regulations, p. 8; aim of this work, p. 9.

FIRST PART: EMPLOYMENT IN WAR THE BASIS FOR TRAINING	11
-------------------------------------------------------------------	----

Overwhelming importance of the army cavalry, p. 11; reconnaissance and action, p. 11; security, p. 13; reports, p. 13; tactical value of the divisional cavalry, p. 14; interior economy of the divisional cavalry, p. 16; conclusions as to the divisional cavalry, p. 17; fundamental differences in the various rôles of cavalry, p. 18; general considerations of training, p. 19.

A. RECONNAISSANCE, SCREENING, AND RAIDS	19
---------------------------------------------------	----

I. RECONNAISSANCE BY THE ARMY CAVALRY	19
-------------------------------------------------	----

Offensive character of the reconnaissance, p. 19.

1. <i>The Main Body of the Army Cavalry</i>	20
-------------------------------------------------------	----

The advance in separate columns, p. 21; concentration for battle, p. 21; reasons for separation of columns, p. 22; measures for concentration, p. 22; reconnoitring squadrons and zones, p. 23; change of reconnaissance zones, p. 27; division into zones, p. 28; relief of reconnoitring squadrons,

p. 29 ; importance of reports, p. 31 ; establishment of a proper system of reporting, p. 32 ; collecting stations, p. 33 ; difficulties of reporting on the move, p. 33.	PAGE
2. Reconnoitring Squadrons	34
<p>Difficulty of their task, p. 34 ; their conduct in friendly and hostile country, p. 35 ; method of advance, p. 36 ; length of marches, p. 37 ; establishment of patrol system, p. 38 ; number of distant patrols, p. 39 ; strength of distant patrols, p. 39 ; relief of distant patrols, p. 40 ; communication with distant patrols, p. 41 ; instructions to distant patrols, p. 42 ; leaving news, p. 43 ; preserving communication by a fight, p. 43 ; conduct of the squadron in the face of superior hostile cavalry, p. 44 ; arrangements for close and security patrols, p. 45 ; communication with neighbouring squadrons, p. 46 ; cyclists and motors with patrols, p. 47 ; the reconnoitring squadrons at night, p. 47 ; the service of security while halted, p. 48 ; communication at night, p. 49 ; sifting intelligence, p. 49.</p>	
3. Distant Patrols	50
<p>Instructing the distant patrols, p. 50 ; patrols in friendly and hostile country, p. 51 ; the advance towards the enemy, p. 51 ; the advance in "bonds successifs," p. 51 ; method of observation, p. 52 ; breaking through the enemy's screen, p. 53 ; the most favourable time for observation, p. 54 ; plan of the patrol, p. 55 ; division of the patrol, p. 56 ; adhering to the road indicated, p. 57 ; conduct against hostile patrols, p. 57 ; conduct against superior force of cavalry, p. 58 ; contents of messages, p. 58 ; time of dispatch, p. 60 ; number of messages and their dispatch, p. 60 ; single orderlies or patrols with messages, p. 61 ; accommodation of a patrol at night, p. 63 ; communication with the reconnoitring squadron, p. 64 ; conduct of a patrol which has lost communication, p. 65.</p>	
4. Close Reconnaissance and Reconnaissance during the Fight	66
<p>Transition from the distant to the close reconnaissance, p. 66 ; the army cavalry on the wing of the army, p. 66 ; conduct of reconnoitring squadrons, p. 67 ; principal task in close reconnaissance, p. 68 ; the decisive battle with the enemy's cavalry, p. 68 ; position of the army cavalry, p. 68 ; action and strength of close patrols, p. 69 ; sending in information, p. 70 ; conduct during the night and supply, p. 71 ; reconnaissance on the battle field, p. 72.</p>	

CONTENTS

XXV

PAGE

II. RECONNAISSANCE BY THE DIVISIONAL CAVALRY. 73

Comparison with the reconnaissance by the army cavalry, p. 73; variety of duties devolving on the divisional cavalry with an army, p. 73; divisional cavalry on a front covered by the army cavalry, p. 74; divisional cavalry acting independently on a front, p. 75; method of advance, p. 76; the fight as a means of reconnaissance, p. 76; reconnoitring squadrons of the divisional cavalry, p. 77; reconnaissance by patrols alone, p. 77; cyclists as a reporting centre, p. 79; close reconnaissance, p. 79; importance of early reconnaissance during the deployment, p. 80; reports as to the country, p. 81; the divisional cavalry of a force operating independently, p. 81; reconnaissance during the fight, p. 82; arrangements for reconnaissance by the cavalry commander, p. 83; communication between the divisional cavalry and its patrols, p. 83; disposal of the cavalry on both flanks of a force fighting independently, p. 84.

III. THE SCREEN 85

Importance of screens, p. 85; offensive screens, p. 86; screens formed by the divisional cavalry, p. 86; defensive screens, p. 88; difficulty of breaking through a screen, p. 90; the divisional cavalry in a defensive screen, p. 91.

IV. RAIDS 92

Importance of the communications of a modern army and their interruption, p. 93; General Stuart as an example, p. 95; increased value of raids, p. 96; principles for carrying out raids, p. 97; measures to be taken against the hostile communication troops, p. 99; composition of the force destined for a raid, p. 99; conduct of the leader towards his own army, p. 100; qualities of the leader, p. 101.

B. THE ACTION OF CAVALRY 101

I. GENERAL 101

The grouping of principles, p. 101; the modern character of the cavalry fight, p. 103; attack and turning movement, p. 103; defensive and offensive with the rifle, p. 106; cavalry at Mars la Tour, p. 106; dismounted action in battle, p. 108; interchangeable relations between mounted and dismounted action, p. 109; Stuart as a teacher, p. 110; tradition and progress, p. 111.

	PAGE
II. ATTACK AND DEFENCE	112
<p>The principle of mobility in mounted or dismounted action, p. 112; the offensive on foot, p. 113; the defensive fight and the dismounted offensive according to the spirit of the regulations, p. 114; necessity of making the army cavalry independent, p. 115; the regulations and the rapidity of dismounted attacks, p. 117; offensive leading of the defensive fight, p. 119.</p>	
III. CAVALRY IN COMBAT AGAINST THE VARIOUS ARMS MOUNTED AND DISMOUNTED	120
<p>Close order in the attack against cavalry, p. 120; close order and lines in the days of Frederick the Great and Napoleon, p. 120; experiences of peace manœuvres, p. 122; close touch and the second line, p. 122; the rally after a mêlée and tactical handiness, p. 123; the regulations concerning close order in the attack and the second line, p. 124; absolute necessity for close touch in the charge and for second line in the attack against cavalry, p. 125; altered conditions in the fight against firearms, p. 126; the attack in lines against infantry, p. 127; necessity of looser order in the attack against infantry, p. 127; the attack against artillery, p. 128; regulations concerning lines and touch, p. 129; the advance in line or in two or more lines, p. 130; the advance in line by signal, p. 132; guiding principles for dismounted action, p. 133; led horses in defence, p. 133; led horses in attack, p. 135; mounting after the fight, p. 136; dismounting with three-quarters of the men, p. 136; reinforcing the firing-line from the horse-holders, p. 139.</p>	
IV. THE FIGHT OF THE INDEPENDENT CAVALRY	141
<p>Variety of such combats, p. 141; grouping of principals according to typical situations, p. 142.</p>	
1. <i>The Battle of Encounter</i>	143
<p>Collision of cavalry detachments in a purely cavalry fight, p. 143; collision in conjunction with the other arms, p. 144; necessity for early deployment, p. 144; the disadvantages of advancing too quickly, p. 145; the position of the leader during the advance, p. 146; forming a decision on scanty information, p. 147; forming a decision when the enemy is unexpectedly met, p. 147; method of deployment, p. 147; arrangements for deployment while advancing in separate columns, p. 148; importance of the order for concentration</p>	

and deployment, p. 149 ; special importance of the arrangements for the advance guard, p. 150 ; the artillery during the deployment, p. 151 ; gradual employment of force, p. 152 ; passage of defiles, p. 154 ; change from a delaying action to a decisive offensive, p. 156 ; use of the artillery and machine guns in decisive attack, p. 157 ; turning movements to avoid a severe fight on foot, p. 159 ; conduct in the face of superior hostile forces of all arms, p. 159 ; conduct of the leader in battle, p. 160 ; issue of orders, p. 161 ; boldness a factor of success, p. 163 ; arrangements for pursuit and retreat, p. 164.

2. *Attack of Localities* 165

Necessity for considerable numerical superiority, p. 165 ; the mounted and dismounted reserves, p. 165 ; seizure of a position as a base of attack, p. 167 ; conduct of the artillery and machine guns, p. 167 ; importance of defining the front of attack and clear orders for the fight, p. 168 ; cohesion and energy of the attack, p. 168 ; conduct of the attack, p. 169 ; the assault, p. 171 ; distance at which the assault should take place, p. 172 ; the fire surprise, p. 173 ; swords or bayonets, p. 173.

3. *The Defence* 176

The defence with an offensive in view, p. 176 ; defence with an offensive counter attack, p. 177 ; passive defence, p. 178.

4. *Breaking off the Fight, Retreat, and Pursuit* 179

The decision to break off a fight, p. 179 ; conditions under which it is easier to do so, p. 180 ; sacrifices necessary to break off a fight either in defence or attack, p. 180 ; the retreat after an attack, p. 181 ; conduct of the commander during a retreat, p. 183 ; the retreat after breaking away from the enemy, p. 184 ; breaking away from the enemy in a cavalry combat, p. 184 ; considerations as to the fire of artillery in pursuit, p. 185 ; determining a point for rallying, p. 185 ; arrangements for the rear communications, p. 185 ; the pursuit, p. 186.

V. THE ACTION OF CAVALRY IN BATTLE 188

The difference in the leading of cavalry in independent action or in the main battle, p. 188 ; concentration of the cavalry mass, p. 191 ; choice of leaders, p. 192 ; understanding between the army commander and the cavalry commander, p. 193 ; independence of the cavalry commander, p. 193.

	PAGE
1. <i>The Army Cavalry on the Flank of the Battle</i>	194
<p>Position in front of the flank of the army, p. 194; reconnaissance, p. 195; safety, p. 196; method of advance, p. 196; conduct of the artillery and machine guns, p. 197; conduct after a successful fight against the enemy's cavalry, p. 198; taking part in the battle, p. 199; great charges probably infrequent, p. 201; activity in rear of the enemy's fighting line, p. 202; combination of fire action and shock, p. 203; necessity of realising modern conditions, p. 203.</p>	
2. <i>The Army Cavalry as a Reserve behind the Front</i>	204
<p>Disadvantage of this position and waiting attitude, p. 204; the advance to the attack, p. 206; the form of the attack, p. 206; deployment, p. 207; conduct of batteries and machine guns, p. 208; taking part in a fight where there is no possibility of the charge, p. 209.</p>	
3. <i>Pursuit and Retreat</i>	210
<p>Decisive pursuits very rare, p. 210; reasons for this, p. 210; necessity for early preparation, p. 212; principles for cavalry pursuit, p. 214; pursuit during the night, p. 215; frontal pursuit and keeping touch, p. 215; the army cavalry in the pursuit, p. 216; cavalry in the retreat, p. 217.</p>	
4. <i>The Rôle of the Divisional Cavalry</i>	218
<p>A lesser sphere of activity in consequence of numerical weakness, p. 218; conjunction with the army cavalry, p. 218; dismounted action, p. 219; action in pursuit and retreat, p. 219; action with an independent infantry division, p. 219.</p>	
VI. DEPTH AND ÉCHELON	220
<p>Modern estimation of échelon, p. 220; échelon in the cavalry of Frederick the Great, p. 220; origin of the modern échelon, p. 221; true value of the échelon, p. 221; increased importance of échelon in the new regulations, p. 222; change of front to a complete flank in the new regulations, p. 225; various duties of depth and échelon, p. 226; disposition of troops according to these duties, p. 227; flank attack and forward échelon, p. 227; offensive value of forward échelon, p. 228; its defensive importance, p. 228; échelon in a division, p. 229; échelon in a battle of encounter, p. 230.</p>	

CONTENTS

xxix

PAGE

VII. FORMATIONS FOR MOVEMENT 232

Influence of artillery on cavalry formations, p. 232 ; extension, p. 233 ; considerations of artillery effect on all the cavalry formations, p. 233 ; the regulations and the cavalry formations, p. 233 ; discussion of the formations for movement laid down, p. 236 ; calls, p. 237 ; protection to the front, p. 238 ; the regulations provisional, p. 238.

VIII. THE VARIOUS UNITS IN THE FIGHT 239

Capabilities of the various units, p. 239 ; the squadron, p. 239 ; the regiment, p. 240 ; the brigade, p. 241 ; the division, p. 243 ; the cavalry corps, p. 244 ; the will to conquer and the offensive, p. 246.

SECOND PART: THE TRAINING OF CAVALRY IN PEACE 247

Preparation for war as the fundament of training, p. 247 ; increased necessity for practical individual training, p. 248 ; object of the individual training of man and horse, p. 249 ; good riding and shooting an important factor in military training, p. 249 ; dead and living discipline, p. 250 ; method of training, p. 250 ; important duties of superior officers and their bearing towards the troops, p. 251 ; troops' gradual progress and training, p. 251 ; special importance of the training of remount and of recruit, p. 252 ; simultaneous progression of training of man and horse, p. 252 ; special importance of field-training, p. 253 ; impossibility of keeping cavalry up to the same standard all the year round, p. 254 ; necessity for a uniform standard of training, p. 255 ; necessity for dividing the regulations for war and peace training, p. 256.

A. INDIVIDUAL TRAINING, AND TRAINING IN SQUADS 257

- 1. *Training of the Horse* 257

Necessity of a new manual, p. 257 ; training of the horse, p. 257 ; further training of backward horses, p. 257 ; recruits' horses, p. 259 ; distribution and training of older horses, p. 260 ; training as a cavalry horse, p. 260 ; exercises in the field, p. 261.

	PAGE
2. <i>Equitation</i>	262
Early commencement of instruction, p. 262 ; necessity for a new manual of equitation, p. 262 ; riding instruction of the recruit, p. 263 ; collective training in military riding, p. 264 ; riding on the curb alone, p. 266.	
3. <i>Training with the "arme blanche"</i>	267
Necessity for new instructions, p. 267 ; the fight with a lance, p. 267 ; training with the sword, p. 268.	
4. <i>Training in Musketry</i>	268
Early commencement of training in musketry, p. 268 ; instruction with the rifle, p. 269 ; objects of this instruction, p. 269 ; progress of training, p. 269 ; training by files and groups, p. 270 ; special training of subordinate leaders, p. 271 ; training of lance-corporals as section leaders, p. 272 ; training of range estimators, p. 272 ; instruction in shooting, p. 273 ; training of the musketry instructors, p. 273.	
5. <i>Gymnastics, Foot-drill, and General Instruction</i>	274
Importance and object of this branch of service, p. 274 ; gymnastics, p. 275 ; foot-drill, p. 275 ; general instruction, p. 276 ; instruction in field-training, p. 276.	
B. FIELD TRAINING	279
1. <i>General Remarks</i>	279
Difficulties of field training, p. 279 ; systematic progress of the training, p. 280 ; importance of the personal question, p. 282 ; training of the prospective leaders on modern lines, p. 282 ; theoretical instructions in the officers' riding-school, p. 282 ; training of the officer's eye for country, p. 283 ; systematic instruction of all officers up to field rank, p. 284 ; further training of the regimental officers, p. 285 ; instruction in patrols, p. 285 ; instruction of under-officers, p. 286 ; practical field exercises, p. 287.	
2. <i>Training at Manœuvres</i>	287
Necessity of manœuvres for cavalry, p. 287 ; the service of outpost cavalry, p. 288 ; rejoining of the outpost cavalry, p. 290 ; reconnaissance during manœuvres, p. 291 ; certain procedure recommended for manœuvres, p. 292 ; unjustifiable demands of leaders on the service of information, p. 296 ;	

disadvantages for the leaders themselves, p. 296; importance of a thorough training in the service of information, p. 297; conduct of divisional and army cavalry in manœuvres, p. 298; the rôle of army cavalry in manœuvres, p. 299; pursuit in manœuvres, p. 300.

3. *Larger Reconnaissance Exercises* 301

Hints to be gathered from earlier proposals, p. 301; importance of exercises in screening, p. 302; want of experience in this direction, p. 302; superiority of the defensive screen, p. 302; difference between reconnaissance and defensive screen, p. 302; main principles for the offensive and defensive screens, p. 303; reconnaissance from balloons in a screen, p. 304; representing the enemy at reconnaissance exercises, p. 305; representation and conduct of the divisional cavalry in such exercises, p. 305; detailing umpires, p. 307; representing a column of an army, p. 307; duties of umpires, p. 308; difficulty in manœuvres of placing oneself in the real war situation, p. 309; transmission of information at manœuvres, p. 310; the use of technical means of transmission, p. 310; contents and messages, p. 312; economy of force, p. 312; importance of the fight for reconnoitring purposes, p. 312; reconnoitring organs in manœuvres, p. 314; framing exercises, p. 315; importance of personality, p. 316; not too many maps, p. 317; detailing leaders at these exercises, p. 317.

C. TACTICAL TRAINING 317

1. *General Remarks* 317

The importance of the squadron in the scheme of training, p. 317; dealing with horses, p. 318; exercises in the field, p. 318; riding with all four reins in one hand and rising in the stirrups, p. 319; the front, p. 319.

2. *Training of the Squadron* 320

Troop-drill, p. 320; preliminary exercises for the charge, p. 320; jumping and climbing, p. 321; drill of the squadron in close formation, p. 322; discipline at drill, p. 323; necessity for long, steady movements and importance of drill at the gallop, p. 324; making use of the country, p. 324; training to the attack, p. 325; the rally, p. 328; further training in the use of the lance, p. 329; training in dismounted action, p. 329; falling out of the leader and bringing up the led

horse, p. 330; further training in squadron drill, p. 330; judging distance and musketry, p. 331; dismounted action against infantry, p. 331.

3. *Regimental Training* 332

Object and time allowed for drill, p. 332; special importance of movements necessary in the fight, p. 333; normal formations and drill for the fight, p. 333; giving order, p. 334; cohesion and independence of squadrons, p. 335; reconnaissance and exploration, p. 337; fancy deployments, p. 337; training of subordinate leaders, p. 337; practice in dismounted action, p. 338.

4. *Brigade Training* 339

Object and arrangement of exercises, p. 339; training in dismounted action, p. 340; tactical training of leaders, p. 340.

5. *Divisional and Corps Training* 341

Object and general arrangement of exercises, p. 341; specially important principles in individual training, p. 342; representing the enemy: freedom of movement, p. 343; difficulties of arranging exercises for a cavalry corps and problematic value of such exercises, p. 344; exercises for the corps on the drill ground, p. 345; their transfer to the field, p. 346.

THIRD PART: ORGANISATION 349

The collective organisation of the cavalry, p. 349; difficulty of altering the existing organisation, p. 350; weakness of the cavalry division in comparison to its duties, p. 352; formation of cavalry corps in war, p. 353; supply and ammunition, p. 354; number of divisions, p. 355; requirements for war and for training, p. 356; our cavalry too weak, p. 356; creation of cyclist battalions, p. 357; necessity for arrangements for keeping the cavalry up to strength, p. 358; disadvantage and distribution of the purchased horses, p. 359; training of the purchased horses, p. 360; necessity of suiting organisation for training to the demands of war, p. 361; enlarging the sphere of activity of the Inspector General, p. 362; regulating the conditions between the Inspector General and the commands, p. 362; further duties for the Inspector General, p. 363; establishment of the Inspector General as an authority, p. 364.

CONCLUSION 366

INTRODUCTION

THE great changes which have taken place in military science since the year 1866 have forced all arms to adopt new methods of fighting. It was, first and foremost, the improvement in the firearm which wrought the transformation of the battlefield and called forth an increased demand for cover against the murderous effect of fire. The infantry sought safety in sparser formations and in utilising the smallest accidents of the ground for cover, while the artillery adopted armoured shields, covered positions, and indirect methods of fire. It was only the cavalry that could not keep pace with these developments. Forming a conspicuous target, capable of being concealed only behind considerable inequalities of the ground, it could indeed seldom find cover within the range of the enemy's fire. As, at the same time, its strength in comparison to that of the great armies of the present day has sensibly diminished, it might be concluded that its particular value in battle had

decreased considerably in possibility and importance.

This conclusion is thoroughly justified, but not altogether in the way that one is inclined to assume. For one reason, the cavalry is now supplied with an excellent firearm, which its mobility enables it to employ against the most sensitive parts of an enemy's line of battle. For another, the composition of modern armies offers, as I have frequently said, many new possibilities of success. Newly raised levies, such as will often have to take their place in the great armies of the day, cannot possess the same steadiness as standing permanent troops. They are, according to experience, very sensitive to moral impressions, and will often enough, when shaken in battle, offer a tempting and suitable object of attack to the cavalry. At the same time, the fact remains that, by reason of its relative numerical weakness, cavalry can no longer retain its former importance in the battle, and that the manner of its intervention in the fight must often be of a very different nature from what it has been in the past.

On the other hand the duty of cavalry in the sphere of reconnaissance has increased in importance. For all strategical movements the main body of the modern army demands considerably more time and, generally also, comprehensive preparatory measures. If, therefore, intelligence

as to the disposition of the enemy is to be of use in operations, it follows that it must be procured at the earliest possible moment. Whoever gets the earliest and best information possesses nowadays a far greater advantage than formerly, when, with the small armies of the day, movements and combinations of force could often be successfully carried out in the immediate presence of the enemy's army. These are indeed still possible in occasional cases and where sufficient depth of formation is maintained, and it is this circumstance that has made early and full intelligence, combined with successful screening of one's own movements, one of the most important factors of success.

There are people who, in fancy, already see cavalry replaced in this rôle by an air fleet. Such prophets cannot, however, be treated seriously. The air cruisers will not be designed for all the possibilities of war. In the period of concentration and in fortress warfare they would doubtless be able, even in their present condition, to render excellent service. Whether they can be adapted for use in a war of movement remains to be seen; but, even if they can in time be of more service for war than at present appears to be the case, their capabilities in this direction will always be limited. They can only observe at night under favourable conditions—such things, for example, as large detrainments of troops or

bivouacs with fires burning. They are under all circumstances dependent upon the weather. By day the air fleet of the enemy will seek battle with them in order to hinder their reconnaissance. Hostile artillery will be particularly dangerous to them, and will be able, thanks to the developments in modern ordnance, to wage successful war against them. All detachments cannot possibly be supplied with airships, owing to the great cost and enormous apparatus entailed, and their usefulness will therefore only be realised with the larger formations. Finally, one or the other of the air fleets will be driven from the field, or rather from the air, and that side which meets with defeat will be deprived of all means of reconnoitring unless it can rely on its cavalry. So in the most modern war the cavalry remains the principal means of reconnaissance. Its activity may indeed be supplemented by airships, but will never be replaced by them.

These circumstances, however, necessitate a new rôle for cavalry. It must drive the hostile cavalry from the field, a cavalry which will do all in its power to secure its own army against intrusion. It will find this cavalry reinforced not only by horse artillery and machine-guns, but also by cyclist battalions, mounted and other infantry, and will therefore have to be prepared, in order to properly carry out its service of exploration, to fight against detach-

ments of all arms. But the same thing will also happen when it seeks to veil the movements of its own army, or to undertake some enterprise against the enemy's communications, or to defend its own against similar hostile raids. Our cavalry thus finds itself face to face with totally new duties of a most real kind, towards the carrying out of which it has no previous experience to help it.

In the wars of Frederick the Great and of Napoleon, as well as in the German war of Unification, there is a total absence of analogy from which to draw conclusions that can be practically applied. The wars in South Africa and Manchuria, on the other hand, reveal conditions which have very little in common with those of a European war such as the German cavalry will have to fight. Nowhere can the few experiences of cavalry action gained in these wars be immediately applied, and there are but few bases for the formation of judgment as to what is practical and possible under modern conditions. The same may be said to hold good of the Russo-Turkish war. The most interesting and instructive campaign for the service of modern cavalry appears to be the American war of Secession, which is, however, almost unknown in Germany, where there is a lack of opportunities to study it.

There is, therefore, for our cavalry a want of any sort of tradition for that rôle which it will be expected to carry out in the next war, and this

want will be the more felt as it will in the future be expected to deal with a number of technical methods of communication which are as a whole still almost unknown, and as to the actual war value of which no judgment can yet be formed. Up to now, also, cavalry training as carried out since the war of 1870-71 has been unable to create a sound foundation for preparation for war. Left far behind in the march of military progress, in tactics as well as reconnaissance it has been led so far from the right way that it would have been unable to stand the test of serious war. Nor have we yet fully extricated ourselves from these trammels of the past.

For the moment, therefore, our cavalry finds itself in a state of transition. The demands which modern war will make upon it have not yet penetrated into its flesh and blood, that is to say, their extent and range have not yet been clearly grasped by the arm, nor have we yet by any means succeeded in breaking loose from the fetters of the past. Views based on antiquated assumptions are often apt to survive and to influence training as well as leading.

This is particularly the case as regards reconnaissance. In tactics, too, the cut-and-dried methods of bygone days are clearly not yet forgotten, while for enterprises against the enemy's communications there is a want both of practical training and theoretical instruction.

This state of affairs must be regarded as a great evil, as at the outbreak of a war there will no longer be time to collect experiences. From the very first day onward the greatest demands will be made upon the cavalry, not only as regards intentions, but performances. On the achievements of the cavalry in the early days of the war will depend to a considerable extent the success of the first great decisive encounter.

We must therefore be prepared to meet these great demands when war breaks out. Only a clear recognition of the necessities and the possibilities of manœuvre and training can secure us this preparation. There remains, then, nothing for us—with no practical war experience to go on—but to create the groundwork of our methods of training from theoretical and speculative reflection. With all the means of intellect and foresight, we must endeavour to discern the probable course of the war of the future and regulate the methods of training accordingly.

Peace exercises based upon such clearly defined principles must serve as a further guide to what is possible and practical. They cannot, it is true, afford realistic results, as they lack the effect of weapons, the hostile country, the thousand causes of friction, and the moral factors of serious war. They can, however, be regarded as practical guides in many directions and will help us to evolve methods unattainable by pure theory: for

instance, in increasing the capabilities of the troops, improving the practical arrangements for communication, the transmission service, the patrol system, and the like. Only these peace experiences must not be overrated, but subjected to continual criticism by the light of what would be practical in war.

It thus remains our chief duty to get a clear and just idea of the rôle that cavalry will play in a future war, in order to clear the mind fully on this point, and so be able further to build upon the foundations of sound reasoning.

The new Cavalry Drill Regulations,¹ in which I had the honour and pleasure of collaborating, have undertaken the creation of these fundamental principles of the independent rôle of cavalry. Their teachings, however, have as yet by no means penetrated into the ranks. The new Drill Regulations have endeavoured to give new rules for the tactical employment of cavalry, which have not yet sufficiently established their value, even on the manœuvre-ground. As yet the troops are only endeavouring to get accustomed to them.

It is also obvious that practical drill instructions, at least for tactics, can only give general principles, and cannot be too definite, lest they should thereby tend to limit the independence

¹ "Exerzier-Reglement für die Kavallerie," part of which has been translated and published by the General Staff, War Office. These Regulations are frequently referred to throughout this work.—TRANS,

of leaders in the thousand varied happenings of war.

It is quite another matter for him who is not called on to make regulations, but whose task is rather to clear the understanding, to stimulate independent thought, and to encourage the troops themselves to form correct judgments. Thus will be moulded the efficiency which will enable the soldier to act in the presence of the enemy according to the Regulations, with full freedom of thought, not after the letter, but the spirit, and even perhaps, in many cases, the intention of them.

From this point of view I have set forth my views and reflections. It seems to me, above all things, important to discuss those points which will be new to cavalry in a future war, and in so doing to touch on many matters of training which long years of experience have convinced me are practical. May I by these hints contribute towards the formation of fresh traditions for the training of the arm that will march with modern conditions, that will break away for good from all half-measures and obsolete views, and thereby clear the way towards a proper conduct of the cavalry in war, and to the winning of fresh and imperishable laurels!

Where I have occasion to touch on views formerly expressed and set forth in my various writings, I find no reason to retract any of

them. In certain directions they have naturally developed further, and have become more progressive under the impress of the whole of modern development and the latest experiences of war. On the whole, however, I adhere to my opinions, and only seek to supplement and develop them in order to suit them still better to the practical needs of the arm. I hope they may act as a stimulus and serve as a guide to many a comrade in difficulties.

First Part

EMPLOYMENT IN WAR THE BASIS FOR TRAINING

THERE can be no doubt that the value and significance of cavalry in a future war will be chiefly demonstrated in the action of the army cavalry.¹ The army cavalry alone, by virtue of its fighting strength, will be able to carry out the larger services of reconnaissance, to operate against the enemy's communications, to take part in the tactical decision with a force commensurate with modern conditions, or to carry out a pursuit.

Reconnaissance occupies a prominent position amongst these various duties. There will not be a battle every day. Not in every fight will considerations of ground and other circumstances allow of the cavalry taking part in a great decision as a mounted arm. Not always will an effective pursuit by the cavalry mass be possible. It must be remembered that in order not to

¹ The army cavalry corresponds with our independent cavalry.—TRANS.

render itself too weak to carry out its proper rôle cavalry must not expose itself to heavy loss in battle without sufficient reason. Only the possibility of a very great success can justify the risk of staking the whole cavalry force in a decisive charge during the battle. It is true that efforts will have to be made to drive the hostile cavalry from the field to facilitate operations against the flank and rear of the enemy's line of battle. But such operations will generally be limited to fire action, and in a decisive battle the weakness of the cavalry would probably debar it from such undertakings. Engagements, also, that are fought with a view to opening a way for reconnaissance will not be of frequent occurrence, and must only be expected during occasional crises. They will, however, be of decisive value for the whole future conduct of the arm and its operative success. The same may be said of raids against the enemy's communications. Such undertakings may exercise the greatest influence on the course of a campaign, but can only be undertaken under specially favourable conditions.

On the other hand, the everyday task of the cavalry which goes hand in hand with all these various engagements and enterprises is *reconnaissance proper* carried out by reconnoitring squadrons and patrols. This is the daily bread of the cavalry, a duty that throughout a war

should never cease to be performed, even if the main body of the cavalry has been driven from the field by the enemy. It demands, therefore, the highest training, the wisest economy of force and systematic arrangement, if it is not to become ineffective or useless.

In close and continual relation to the above is the further task of safeguarding and screening the army. Reconnaissance itself provides a measure of security, but it is always liable to miscarry, and can never secure the army against hostile observation. Reconnaissance must therefore be supplemented by a special system of security and screening which, however, demands the most careful organisation, and greatly increases the difficulty of husbanding limited forces and of keeping the troops fit by not overworking them.

Intimately connected to the services of security and reconnaissance is that of communication, which, owing to the great distances to be traversed in modern war and the necessity of early transmission of intelligence, has become, at the same time, of the highest importance and of the greatest difficulty. Here also is a daily duty for the cavalry in which a thorough training is necessary.

All these considerations must be kept in view in arranging the training, and a clear conception should be formed as to what is to be aimed at in great as well as small matters. Only thus

will results be obtained which will stand the test of war.

It is only natural that in our army the greatest stress is at present laid on the duties of the army cavalry. These are so obviously new and important for the arm that it is easy to understand how more time is devoted to them in peace training, and how the task of the divisional cavalry has come to appear of less importance. It might indeed be contended that the training which the latter has hitherto received in garrison and at manœuvres would suffice for its needs.

It is my opinion, on the other hand, that such a conception is faulty. The importance of the divisional cavalry has in no way diminished, and one is not justified in assuming that any lesser demands will be made upon its efficiency than on that of the larger independent formations. The exact contrary is the case, and I consider it opportune now, when all interest is centred in the army cavalry, to lay particular stress on the extraordinary importance of the divisional cavalry.

As in the newest phases of military development, the general value of cavalry, according to my opinion, particularly in the organism of an army, has increased, so also has that of the divisional cavalry. Higher demands are made of it, and it must therefore be capable of greater performances.

The circumstances of modern war demand that great masses of mounted men shall be used as army

cavalry and concentrated in the decisive direction, thus weakening a great part of the front of the army in cavalry, in order to ensure superiority at the decisive point. It is in accordance with the universal law of military success that a concentration of force at the decisive point can, under most circumstances, only be ensured by a corresponding weakening of force in other places. The front of the army, therefore, can never be covered throughout its whole length by the army cavalry, but at the same time it will never be possible to entirely denude of cavalry that front or flank in front of which no army cavalry may lie. This would be simply impossible, for every body of troops, however disposed upon the strategic front, requires cavalry for the service of close reconnaissance, of security, and of screening against surprise or against hostile observation.

Furthermore, even those bodies of troops in immediate advance of which the great cavalry masses are on the move require their own cavalry, not only for the purpose of ensuring and maintaining communication with the army cavalry, but also that they may not be entirely denuded of cavalry when, as the hostile armies approach each other, the cavalry masses clear the front and concentrate towards a flank.

Finally, it will not always be possible to detail portions of the army cavalry to detached forces, because it has other duties to fulfil and other

claims made upon it. Thus, for example, the army of Manteuffel in the campaign against Bourbaki had at its disposal none other but the divisional cavalry.

The weak divisional cavalry, therefore, must be prepared to carry out all the cavalry duties which may arise from these conditions. Amongst them particular mention must be made of the outpost service, which, although shared with the infantry, imposes a heavy burden on the divisional cavalry. Any one who has once been through manœuvres knows how great the demands of this service are, even in peace, in the exertions involved and the time expended. In war these exertions become at times considerable, if less frequent, for the critical days do not follow each other so closely as in manœuvres.

If we consider, moreover, how every cavalry undertaking has increased in difficulty owing to the greater size of modern battlefields and the improvement in firearms, it will become clear that the sphere of usefulness of the divisional cavalry, even from the purely tactical point of view, which up to now we have alone considered, is a very extensive and important one.

This tactical activity is closely dependent upon the whole interior economy of the division. These few squadrons must furnish orderlies and despatch-riders, which, in the case of the conduct of so large a force as an infantry division, must mean

a considerable drain on their strength. They will often be deputed to collect supplies in villages away from the roads, when the supply columns fail and the places occupied do not afford sufficient for the troops. Although it is possible that other troops, such as infantry in carts and bicyclists, may be used for this service, it will never be possible to relieve the divisional cavalry entirely of it. The relay service also makes a greater demand on the strength than is generally supposed. In the campaign of 1870-71 this cause contributed largely to the weakening of the squadrons at the front. Nowadays every effort is made by means of technical apparatus to relieve the cavalry, at least partially, from this service. It would, however, be a mistake to assume that the relay service of cavalry can be everywhere replaced by telegraph, telephone, signalling, bicycles, or motor. Circumstances will occur in war in which all these methods of transmission, which are already in themselves partially unreliable, must fail us, especially where they are exposed to destruction from the hand of the enemy. The proper performance of these interior services must never, however, miscarry throughout the whole campaign, and imposes therefore still higher and more continuous demands on the efficiency of the troops.

As the result of these reflections we may con-

clude that a series of very important duties will fall to the lot of the divisional cavalry in war, which cannot be carried out by any other troops or in any other manner than by the divisional cavalry. Further, that these duties have, on the whole, increased in importance, and that their fulfilment has become considerably more difficult by reason of the conditions of modern war.

According to these conditions the importance of the divisional cavalry must be judged. If the decisive rôle in war falls essentially to the lot of the army cavalry, yet must the duties of the divisional cavalry be regarded as just as necessary for the good of the army. Methods of training must be adopted with these points in view, and it must be quite clearly understood that in this direction modern conditions have to be reckoned with which demand thorough innovations.

As to the rôle of cavalry in the fight, we may conclude from the above that it may be sharply divided into two separate groups : firstly, in those encounters where cavalry is acting as an independent body, and will have to carry out reconnaissance, the service of security and raids ; and secondly, where cavalry will take part in a battle in conjunction with the other arms. It is obvious, after what has been said, that the first group is by far the more important, and will require particular attention as regards training. We will endeavour in the course of this work to

prove that this is the direction where the most friction is to be overcome, and where by far the most difficult part of our task will lie.

The chief considerations for training are naturally evolved from the duties to be performed in war itself. The services of reconnaissance and security come first. The technique of these services and the method of fighting necessary for carrying them out must be fully mastered by the troops right down to the individual soldier. Next in importance come undertakings against the enemy's communications, and the participation in the battle which war will demand of our arm. These are the matters which must be studied by those who undertake to discuss methods of training. We must be perfectly clear in our minds what duties in the various spheres of action will fall to the lot of the arm as a whole, to its sub-divisions, or to its single members. The relative importance of these duties must be our guide in considering the essentials of training.

A. RECONNAISSANCE, SCREENING, AND RAIDS

I. RECONNAISSANCE BY THE ARMY CAVALRY

The very essence of cavalry lies in the offensive. Mounted it is incapable of tactical defence, but, in order to defend itself, must surrender its real character as a mounted arm and seize the rifle on foot. The service of reconnaissance, therefore,

must necessarily be carried out in an offensive sense.

The idea of the offensive is not, however, meant here in a narrow sense, such as seeking a tactical battle, but rather that the reconnoitring army cavalry must under all circumstances maintain the initiative, use its activity against the enemy, and impose its will upon him. It is by no means its duty under all circumstances to seek out the enemy's cavalry in order to defeat it. By such conduct it would allow the enemy's cavalry to dictate its movements. It must rather subordinate all else to the particular objects of reconnaissance, and advance in those directions which promise the best fulfilment of the reconnaissance needs of the Army Head Quarters. Should it thus meet with the enemy's cavalry it must naturally attack and overthrow it. On the other hand, it can safely reckon that the more decisive the direction in which it moves for the purposes of reconnaissance, the more chance there will be of meeting the enemy.

1. *The Main Body of the Army Cavalry*

The same principle holds good for the strategic disposition. The old Cavalry Drill Regulations laid down that the strength of the cavalry division was to remain concentrated until the enemy's cavalry had been driven from the field. This

considerably overstepped the bounds of restriction usually imposed by regulation, and at the same time fettered the freedom of movement of the cavalry in a way that, under certain circumstances, might have become most harmful. The new Regulations have left out these directions and indeed lay down that, in the "advance to the fight," efforts must be made to reunite columns that are advancing separated before collision with the enemy takes place (413).¹ Here is expressed a principle which, if rightly understood, is certainly justified, but which, on the other hand, might give rise to misunderstandings.

It must first be pointed out that it is by no means always desirable to unite columns that are separate before the fight. It may, for example, very easily happen that a detachment in favourable country will be able to occupy a superior force of the enemy, and thus, by remaining dispersed, ensure superiority at the decisive point. If, however, by the "concentration of columns" a mutual approach is understood, which ensures a concentric co-operation of divided groups against a common enemy whose direction of march is more or less known, then

¹ "When advancing in separate columns, special measures must be taken to insure the cohesion of the forward movement. Every endeavour must be made to unite the columns before collision with the enemy; for a junction on the field of battle will seldom succeed, if only on account of the rapid course of the cavalry combat."

the principle is an excellent one. If, on the other hand, it is intended that single columns should be so closely concentrated that the division as a tactical whole can be thrown into the fight, it appears to me that it goes too far, and might easily lead to harmful dogmatism. Thus read, the regulation appears to me to be the more dangerous, as exercises in a limited space encourage the concentrated employment of the larger cavalry bodies in the fight, and their approach and deployment from formations of assembly or intermediate formations, for which brigade columns are usually chosen.

It must be remembered that it is always much more difficult and dangerous in the presence of the enemy to separate a cavalry mass for the fight than to concentrate it from a not too wide separation for common action against the enemy. In the first case the danger must be run of surrendering "the proud rights of the initiative" to the enemy, and of being obliged to attack eccentrically; while in the second case one is in possession of the exterior lines, and, with them, the most favourable directions for attack.

The regulation quoted should therefore result only exceptionally in a complete tactical concentration. The wish, however, to fight concentrated must never lead to a concentrated advance unless circumstances dictate such an operation as practical. Leaders of the larger reconnoitring

bodies will have, rather, continually to consider how they may best fulfil the task of the moment in the most practical way without allowing themselves to be bound by preconceived theoretical views. This must be their course of action, and will often enough lead to the advance in separate columns. The breadth of reconnaissance-zones will often demand such procedure.

Along the whole front, troops must be in a position to support the reconnoitring bodies which have been pushed forward. This will not always be possible from a single point on account of the distances involved. It will at times be necessary to break through the hostile screen when it is met by force of arms, without first being able to judge where this can most easily or most advantageously be accomplished. Again, complete information will not perhaps be to hand of the presence and the direction of march of the hostile cavalry, so that the concentration of force upon a single road will not appear at all desirable. It must also be borne in mind that the masses of cavalry have not only to act as fighting bodies, but at the same time to play an important part in the system of obtaining information. Communication must be maintained with the Head Quarters, as well as with the reconnoitring squadrons and certain independent patrols. In the latter case particularly, great difficulties will often arise. A cavalry

leader must continually ask himself which is the shortest and safest means of communication with the reconnoitring organs on the one hand and with the army following him on the other, and how it can be maintained when hostile detachments pervade the intervening country. All these are circumstances which would lead to the adoption of an advance in separate columns.

The universal principle must always hold good for cavalry, that when a decisive struggle is in prospect all possible strength must be concentrated for it. On the other hand, it must be perfectly clearly understood that in a future war many varied and often contradictory demands will be made upon the arm. It will not always be possible to meet them all from the one point of view—that of uniting all possible strength before the commencement of a fight; the less so as in reconnaissance the fight is only the means to an end, the knowledge of the enemy being the essential. It remains for the genius of the leader to make his preparations in full freedom, and to solve the task confided to him in his own way. To hamper active operations by regulation is always a great evil.

The danger which lies in separation of force is not so great for cavalry as might appear at first sight, on account of the mobility and adaptability of the arm. For, although the Regulations lay down that on account of the rapid conduct of a

cavalry fight the concentration of separate columns upon the field of battle can but seldom be successfully accomplished, this view can only be admitted in the case of the mounted combat. I am of opinion that it cannot be so difficult under ordinarily favourable circumstances to bring about such a concentration. With reliable reconnaissance early intelligence of the presence of the hostile cavalry should be to hand. It should then be often still possible to concentrate the separate columns according to circumstances, either forwards, backwards, or to a flank, and finally to unite them for the fight with sufficient room and time, and in an effective direction for attack. If, however, a portion of the advancing cavalry mass should come into unforeseen collision with superior hostile cavalry, it must fall back in a direction which will lead to concentration of force. In order gradually to lead up to, and at the right time to achieve, such a concentration from a divided advance, without falling into the error of a too close tactical concentration, presupposes that the leader is an artist in the conduct of his arm. Such an undertaking is much easier where not only mounted combat, but fire action is taken into consideration. In such a case that detachment which comes first into collision with the enemy would be able to defend itself in some strong position or behind some naturally defensible locality until the rest of the main body came up.

Good communication between the several portions is in all such cases an important factor. If necessary it must be effected by the help of the guns. Generally speaking, it will facilitate and prepare communication if the separately advancing columns are kept informed as to the rate of march, so that each column can at any moment calculate where the others will be in a given time if nothing unforeseen occurs. This also enables information to be sent by the shortest route to points which can to a certain extent be previously determined.

The arrangements for the advance form at the same time the foundation for the action of the actual reconnoitring organs and the complete establishment of the reconnaissance system. Directions for this will be found in the "Field Service Manual." It is laid down that reconnoitring squadrons will be pushed forward from the various groups of the army cavalry, and will be allotted zones of reconnaissance in the direction of the enemy. The reconnaissance itself will be carried out by patrols.

The breadth of these zones must continually alter according to circumstances.

If it be necessary to reconnoitre on a broad front with a comparatively weak cavalry, very wide zones will often be necessary. On the other hand, the closer the system of reconnoitring squadrons can be established, the more reliable

the manner in which reconnaissance will be carried out, and the easier will it be to hamper the enemy's efforts at gaining intelligence. If the "Field Service Manual" lays down a certain breadth as normal, this naturally only indicates that, under ordinary circumstances, squadrons on a wider front would no longer be in a position to carry out their duties to the full; nothing more. The frontages laid down should never lead either to the perceptible weakening of the fighting value of a force by sending forward too many reconnoitring bodies, or, on the other hand, to the inability of the reconnoitring organs to cover the space demanded by the strategical situation. A well-considered allotment of areas is therefore of special importance, and a matter for the higher leader to decide. For the arrangements for reconnaissance inside the zone apportioned to him, the squadron leader is, on the other hand, correspondingly responsible. It is at the same time laid down that no squadron should interfere in a neighbouring zone.

Although in these measures the principles for the reconnaissance may be sought, it must be clearly understood *that the original allotment of zones cannot always hold good*. This arrangement is only practicable and suitable so long as the opposing armies are frontally approaching each other. As soon as the directions of march form an angle with each other the conditions alter.

When information has been obtained as to the enemy's position and that the direction of his advance is not directly at right angles to our front, or if the direction of march of our own army changes, it may be necessary to make repeated changes in the zones of reconnaissance. The manner in which this can best be done is a matter which experience alone can show us. The change of zones will often be possible in conjunction with the recall of detached squadrons and the sending forward of fresh ones in a new direction, or during the relief of reconnoitring squadrons.

When the gradual advance of the hostile army takes place and the army cavalry endeavours to clear the front and to draw away to a flank, or when the columns of both armies group themselves for the tactical decision and concentrate more or less from their march formations, the allotment of zones must utterly fail.

An allotment of zones, also, cannot always be recommended, that is to say, not where it can be foreseen that it cannot be carried into operation. Such a case might happen if an enemy moved across the front on a more or less distinct flank march. The reconnoitring squadrons would, perhaps, in such a case be better employed in keeping touch with the various groups of the hostile army than by tying themselves down to a systematic reconnaissance in zones.

The conditions of war are everywhere so changing and full of movement that a single concrete scheme will never suffice, but each case must be judged upon its own merits. The allotment into zones, therefore, laid down in the "Field Service Manual" must be regarded as but a foundation for the methods to be adopted, and will perhaps only attain its full effect during the first concentration of opposing armies, when the hostile groups deploy along a land frontier on a wide front. During operations the original scheme must of necessity be subjected to continual alterations and transformations.

Let us now further consider the relief of reconnoitring squadrons. It is out of the question that such squadrons should remain continually in touch with the enemy. Such a procedure would very soon paralyse the strength of men and horses. The relief, however, cannot, naturally, be arranged and carried out at any given moment. It requires preparation, as the whole patrol system must be drawn in and replaced by a fresh one. The relief will doubtless best take place after a great tactical crisis. At such times the reconnoitring squadrons will partly have been driven back on to the cavalry mass, and partly will be in position with their patrols near them in flank and rear of the enemy, whence they can be comparatively easily brought in. A great tactical decision also which creates a new

situation demands fresh measures for reconnaissance and a different arrangement of the reconnoitring organs. Whether it will then be possible to mathematically divide the ground into sections need not here be decided.

Under certain circumstances it will be advisable to detail reconnoitring squadrons to watch the various groups of the hostile army. If we take the campaign of 1870 as an example of a concrete case, the battles of Spicheren, Mars la Tour, and Gravelotte afforded natural periods for the relief of reconnoitring squadrons and the fresh allotment of reconnoitring zones for the First and Second Armies, and later the battle of Sedan. For the Third Army, first of all, the battle of Wörth. Cases may of course occur when the reconnoitring period between the battles is too long, and a relief becomes necessary in the interim. The case of the Third Army is a good example of this.

A reconnaissance from Worth to Sedan could never have been carried out by the same reconnoitring squadron. A relief was absolutely necessary. According to my judgment, the best time for this would have been the days during which the great wheel of the Third Army towards the north was completed. During these days fresh reconnoitring squadrons would have had to be thrown forward in the new line of march, while those which had advanced in the original direction

could, according to the situation, have been gradually drawn in. Strong patrols would have been sufficient in that direction.

In any case it is clear that the question of the relief of reconnoitring squadrons is extremely important and cannot be solved by routine. It is a matter for consideration whether it would not be of advantage for the "Field Service Manual" to touch on these questions as well as on the circumstances under which a departure from the system of allotment of zones might be desirable. I am inclined to think this desirable, as otherwise the extremely practical dispositions therein laid down are apt to lead to a lifeless formalism.

The important service of transmission will naturally be deeply influenced by all these conditions.

I have already expressed the opinion that the importance of this service with regard to the increased extent of the reconnoitring rayons may even lead the main body of a division, for example, to advance in separate columns, in order to shorten the routes of information and to afford a not too distant support for the reconnoitring organs. The Head Quarters will often be more quickly informed if the news comes direct from detachments themselves than if it had first to be collected at one point.

If it has become so necessary to accelerate the service of communication, it is all the more so

to ensure that the system of reports should be properly ordered. In the main body of the army cavalry it is a matter of keeping up communication on the one hand with the army following, on the other with the advanced squadrons. In both these respects the application of technical means of communication must be considered before all else.

Communication to the rear is fundamentally the task of wireless telegraphy. But the system of information to the front must be otherwise arranged for.

Communication with the reconnoitring squadrons can practically never be carried out by wireless telegraphy. Here efforts must be made to work with the light-signal apparatus,¹ or to employ cyclists or relay lines to facilitate and accelerate the service of transmission. A combination of all these means, and the use of the cavalry telegraph, if need be, will be found advisable. In friendly country the population can often be used to keep up communication or to send messages.

The employment of single cyclists or motor-cars is, on the other hand, not advisable. Without taking into account the fact that they are tied to the roads, and, having no fighting value, will often fall an easy prey to the enemy, technical defects occur so often in the machines that they cannot

¹ The lamp used by night and day in the German Army, combining the functions of our heliograph and lamp.

be classed as a reliable means of communication, particularly in hostile country. Should the distance between the reconnoitring squadrons and the main body become very great, or if circumstances arise which render direct communication between them too long a matter, or if it is desired to provide several avenues of communication, a collecting station can be formed for reports: this will keep up connection, and must be secured by a detachment of sufficient strength. It is erroneous to assume that such collecting stations must always be used. They often operate very unfavourably, especially when armies are on the move, as they are for the most part very local, and then do more harm than good.

If there is a sufficient number of apparatus at disposal, and if the collecting stations are sufficiently secured, an effort should be made to establish wireless communication from them to the rear—a cipher being of course used to prevent the enemy learning the contents of messages. Otherwise the various means available must be suited to the particular case, and used in combination.

The system of communications thus forms a complicated machine, formed of technical and natural methods of transmission of great variety, that will be difficult to maintain in an efficient state, especially when an army is on the move.

It is obvious that these difficulties must be augmented during the change of reconnoitring zones or the relief of reconnoitring squadrons. It will often be worth while to establish the system of intelligence in a new direction, while the available apparatus and telegraphs are still in part maintained on the old lines. Only some "system of auxiliaries" will meet these difficulties; only troops to whom this service has been entrusted down to the smallest detail will be able to discover these auxiliaries and properly employ them. Otherwise the service of information must miscarry.

2. *Reconnoitring Squadrons*

From the above considerations it must be already clear that a great measure of resourcefulness, a comprehensive grasp of the situation, clearness of judgment, and a love of responsibility will be demanded from the leader of a reconnoitring squadron. Even in the simple advance in the allotted zone clear understanding will be required as to all the measures for the proper conduct of the troops, and well-calculated boldness when the enemy is met with.

There will, however, be difficulties to overcome when the main body of our own cavalry changes its direction; when the concentration for battle begins from the line of march, the cavalry masses draw away to a flank, unexpected measures

of the enemy come to light, which had not been counted upon when our own reconnaissance was arranged; or when our own cavalry is beaten, and touch with it is completely lost. Under all these circumstances the allotment of zones completely loses its value, and the whole reconnaissance must be arranged and ordered on some other system. Squadron leaders will often in such cases act quite independently and according to their own judgment of the situation, and with an appreciation of the probable action of neighbouring squadrons, without, however, losing sight of the main objective. In such cases they will often report direct to Head Quarters, and may then have to fall back on the main army instead of on their own division.

Every squadron commander can conclude from these reflections what an unusually high standard of military training, power of judgment, and initiative will be demanded of him if he is properly and successfully to carry out these duties. I hope that all officers will be stimulated to apply themselves to these matters, so that a future war may not find them unprepared.

It is a matter of the greatest importance for the conduct of the squadron in general whether it is acting in a friendly or hostile country. While in the first case troops may ride through towns, feed in villages, and count upon considerable support from the inhabitants, in the

service both of security and information, in the second they must always be prepared against treachery or surprise, and behave as if they were surrounded by a network of spies. Townships are to be particularly avoided, and special precautions for safety must be taken, especially while at rest.

In other respects the advance itself must in both cases be carried out according to the same principles.

Squadrons will generally advance in *bonds successifs*, and upon those roads which appear to them to be the most important for reconnaissance. If they are provided with the light-signal apparatus, and can use it for communicating to the rear, they must keep in mind during the march itself the possibilities of being able to use it, try it on the ground, and make a mental note of points that are specially adapted for connection-stations. The whole plan of the day's march must then be made with an eye to the establishment of communication by this method. Halting-places for rest or feeding horses must be selected with regard either to good cover or to the view which may be had from them. In order to be independent of the hostile population it is advisable for the squadron to have its ration and forage wagons with it. In case of an unsuccessful collision with the enemy these may indeed be lost. In any other case, however, they

will always be at the disposal of the squadron. On the other hand, in hostile country, if they follow the squadron at too great a distance, they will often fall a prey to the enemy. Under such circumstances, if they are to be really protected, a sufficiently strong escort must be left with them, and this will react unfavourably upon the strength of the squadron.

The efforts of reconnoitring squadrons to diminish the distance between themselves and the enemy as quickly as possible by undertaking excessive marches, such as are frequently seen in peace, are misdirected and unreal, and only tend to wear out the horses. In peace manœuvres, which only last two or three days, and which have not to be sustained by a number of lame and overtired horses, such proceedings are indeed possible, but in war they are pernicious. A squadron should be able to remain up to strength throughout a campaign, and it must be remembered that horses that go lame and are left behind will, at all events in hostile country, be lost to the reconnoitring squadrons for good. The patrols, too, must be able to keep something in hand. But, if the squadrons tax their capacity for marching to the utmost, the patrols, which are required to go still farther in advance, must be completely exhausted. If the squadrons can cover daily 25 miles and the distant patrols 35 to 40 miles, this will, I hold, be quite sufficient.

More than this, on an average, cannot be expected of them. This does not of course preclude special efforts to meet particular circumstances. It will only be possible, however, to demand these efforts when we learn how to calculate the average length of march during which men and horses can be kept fresh and efficient.

Although the choice of lines of advance and the combined action of the reconnoitring squadrons are often weighty factors of success, yet on the other hand, in order to obtain early and sufficient intelligence of the enemy, it is of the highest importance that the patrol system should be properly ordered according to the needs and probabilities of the situation. The "Field Service Manual" gives the necessary principles for their action. They must, it says, be sent forward along the roads that the enemy is most likely to use. By so doing, certain results must, under any circumstances, be obtained. On the other hand, it is a mistake to send forward single patrols against a wide front. Under such circumstances a patrol is always in doubt which way to go, will probably divide, and cannot, at all events, be everywhere. From such procedure, which is unfortunately only too common, reliable results cannot be expected, and it is never certain if observation is being carried out in any given direction. Such a faulty course of action usually originates from a certain confusion of thought

on the part of the leader as to his own intentions and his suppositions as to the enemy. A clear appreciation of the situation ensures at the same time a clearly defined course of action. If, however, no sort of idea can be formed as to what the enemy is likely to do, the patrol system must be extended, not only in those directions from which the enemy may be expected, but in others where it is possible that he may be met with. Any turning movement on the part of the hostile forces must, in this manner, be continually guarded against.

The number of patrols sent out will, of course, depend on the importance of the task. If the strength of a squadron is insufficient to provide them, it must be supplemented by patrols detailed from other squadrons. The relief of such patrols, also, may have to be carried out by the same means. Cutting down the number of distant patrols is to be avoided as far as possible. Economy of force can be better attained by careful husbanding of strength in the close reconnaissance and service of security.

The strength of distant patrols should never be arbitrarily laid down, as in this respect also the circumstances must be taken into account. Patrols which are far distant from the road upon which the squadron is advancing, and which can only be reached with difficulty, require a greater degree of independence than those in the im-

mediate neighbourhood, which can be rapidly supported or strengthened. The probability, also, of meeting with superior hostile force demands a greater proportion of strength. Under certain circumstances a whole troop may be used as an independent patrol. At the same time a wise economy of force must be practised so that the fighting and marching efficiency of the squadron does not suffer too much. To this end, quite weak patrols must be made to suffice in directions of secondary importance. A second in command must be detailed to every patrol. There should also be a supply of trained lance-corporals ready to lead such patrols as may be required to carry information to the rear.

The strength of patrols will depend largely on the number of messages that they are expected to send in. As a general rule, in large operations, not more than two messages will be required from each patrol during the day. It is only when the opposing armies approach each other, and the distant patrols gradually become close patrols, that it will be necessary to report frequently on tactical events. The distances, however, will then have so far diminished, that a reinforcement of the patrols from the squadrons would probably be possible if they have become over-weak through transmission duties.

Like the reconnoitring squadrons, the patrols require relief from time to time, as the same

patrol leader cannot be expected to remain in continuous touch with the enemy.

The strength of patrols, therefore, will generally have to be calculated according to the number of messages and the number of days during which the same men are required to be in contact with the enemy. It is only when a special fighting strength appears necessary that these numbers should be exceeded. On the other hand, the patrols in friendly country may be made weaker than when in the enemy's territory, as, in the latter case, it will scarcely be possible to send in messages by single orderlies.

Careful preparation must be made for the relief of patrols. Every patrol that is sent out must know when, and approximately where, it can rejoin the squadron. The relieving patrol should arrive on the field of exploration before the original patrol returns. The two patrol leaders should meet where possible. All the patrols should never be relieved at one time, as such a procedure would tend to weaken the squadron too much.

The reconnoitring squadron must continually endeavour to maintain communication with the distant patrols which send in reports to it. As the main body must always be careful to render communication with the reconnoitring squadron possible and to facilitate it, so is communication with the patrols one of the most important duties of the latter. It will often be necessary, when

the distances become great or the ground difficult, to push forward relay posts to facilitate and accelerate the service of transmission. These posts must have a sufficiency of force assigned to them. The squadron leader, further, must most minutely instruct the patrols in anything that can serve to assist the carrying out of their task, and as to all arrangements for the transmission of reports.

A patrol's instructions must be short and clear, and must leave no room for doubt in the patrol leader's mind as to what is expected of him.

The instructions must contain: all that is known of the enemy; a statement of the general situation, and of the system of reconnaissance, as far as it may concern the patrol in question; an indication of the proposed march and the objective of the squadron; points where messages as to the position of the squadron may be deposited, in case it should be found necessary to depart from the preconceived plan; exact data as to when and where the relieving patrol will be sent and also when the patrol is to rejoin the squadron.

Although such arrangements may not always have the desired results, as all such dispositions are liable to be disturbed by the action of the enemy, they yet form a good groundwork on which to build further, according to circum-

stances, and which can be suited to any alteration of the situation. Such arrangements should therefore never be neglected.

In manœuvres, the leaving of such information—for instance, under stones—in prearranged places or localities that are easy to find, and which must be determined by the map according to the expected situation, will be found a valuable exercise.

Communication will, as a rule, be best secured if the reconnoitring squadron can succeed in beating the hostile organs of reconnaissance and security. We must not, of course, assume that a squadron that has been thrown back and pursued for a space will be rendered incapable of carrying out its rôle. It will still try to support its patrols as before. If, however, such successful combats become numerous, a superiority will at length be obtained, particularly on the main avenues of communication, that will considerably facilitate the task of obtaining and transmitting information.

It must therefore be the ceaseless endeavour of the cavalry to attack the enemy wherever found. The reconnoitring squadrons in particular must undertake the duty, not only of driving the corresponding hostile squadrons from the field, but of endeavouring to intervene and assist wherever the hostile reconnoitring patrols offer an obstinate resistance. They must take every op-

portunity of fighting with the *arme blanche*, or of attacking the enemy in some unfavourable situation, perhaps by night. Dismounted action for single squadrons advancing in hostile country is generally dangerous, and, on account of the weakness of the force, usually leads to failure. It should never be forgotten that for a successful action on foot great numerical superiority is indispensable.

Should the reconnoitring squadron come in contact with the enemy's cavalry in strength, it must be decided whether to fall back, or avoid it by a *détour* in order to maintain under all circumstances communication with the distant patrols. In the latter case, communication to the rear becomes naturally considerably more difficult, and it can only be hoped that the hostile cavalry will be beaten by our own. Whatever decision is made will depend upon the circumstances of the case: the terrain, the distance from our own cavalry and from the enemy's main body, as well as on what is already known of the enemy, and on what it is of particular importance to learn. It will generally be most important, as well as desirable, to maintain at all costs communication with the distant patrols, as news must first be procured before it can be sent back, and it will be possible under certain circumstances to communicate over the enemy's head with the light-signal.

In order to maintain the necessary fighting strength of the squadrons under all circumstances, as few men as possible should be detached. This does not of course refer to the distant patrols.

The melting away of the squadron's numbers, so often seen in peace, is generally a result of the manner in which the close reconnaissance is conducted. The close patrols are sent out 6 or 7 miles, often still farther, and, having general instructions to remain in touch with the enemy, seldom rejoin the squadron. Thus they become lost to the squadron, and as the squadron leader is not fully aware of their position he is soon under the obligation of having to send out a fresh patrol. This patrol is a less useful one than the first, and if it brings in news of the enemy the latter will often arrive simultaneously with the news. The report often enough goes first to the enemy about whom it is being made. No reproach can be attached to any one concerned. It lies in the nature of things and in the method of apportioning duties.

In contradistinction to such procedure, it is, in my opinion, in most cases quite superfluous to arrange a close reconnaissance in addition to the distant patrols. Close patrols weaken the squadron, and can only, it appears, rejoin it with difficulty, nor do they effect the necessary reconnaissance. Every squadron must, on the other hand, be continually surrounded by local patrols

for its own safety, closely connected with it, and which, being in constant communication with the squadron, secure it immediately from surprise and, as far as their strength allows, attack and break up hostile patrols. This measure will not have the effect of weakening the squadron too much. These patrols will require relief from time to time, and accompany the march of the squadron in its rayon in such a manner that a second patrol can be sent out before the first rejoins. They must, however, never be drawn so far away from the squadron that they cannot secure its immediate safety and beat off hostile patrols.

If, in exceptional circumstances, patrols are sent out in close reconnaissance, it is desirable that they should work from one locality to another a few miles in advance, so that it will always be possible to get them back. Especial attention must be given to this matter when operating in the enemy's country.

Patrols to connect with neighbouring squadrons are quite superfluous. They have little prospect of carrying out their task in a practical way, and must therefore be regarded as a useless expenditure of force. The regulation of the movements of the various reconnoitring squadrons as a whole, and the dissemination of information regarding them to each other, is a matter for the Head Quarters of the main body.

Economy in patrols should never go so far as to allow of cyclists, or indeed a single cyclist or motor-car, being used for reconnaissance, as unfortunately repeatedly happens in manœuvres. Cyclists may be used for the purpose of maintaining communication and bringing back reports. It will not be possible to use them singly for these duties, especially in the enemy's country, but several will have to be sent together. Bound as they are to the roads, they are quite unsuited to patrol work. It is also inadmissible, at all events in hostile country, to send bicycles or motor-cars with patrols. They only become a burden to the patrol as soon as it wishes to leave the road. For the motor cyclist the question of petrol is also an important one. Where will he replenish his supply in hostile country? Certainly not in villages with a hostile population, unless a sufficient show of force can be made.

The accommodation of reconnoitring squadrons for the night also demands close attention. Such accommodation must be chosen from quite different considerations, according as the squadron is operating in a friendly or hostile country.

In any case, endeavour must be made so to dispose the squadron that the chief avenues of communication, at least, will be under observation, and thus closed to the enemy's despatch-riders. The horses also must be rested, that they may be ready for the next day's work, for a tired squadron

cannot reconnoitre properly. In order that the horses may really rest, they must be off-saddled, and, to do this, the squadron must be secure from surprise. This will not always be possible, but endeavours must be made towards that end. Should hostile detachments be in the neighbourhood, which is unavoidable during critical days, it will be necessary to be always ready for possible surprise, and to so arrange that the squadron can speedily withdraw from its bivouac on the approach of the enemy. The measures taken for safety must be directed to this end. It is also sometimes desirable, in order to deceive the enemy, to change the halting-place already occupied, after darkness sets in. In friendly country, if an attack is expected, it is often better to spend the night in larger villages, where the inhabitants themselves will co-operate in the service of security. In the enemy's country, on the other hand—where the hostility of the inhabitants is to be reckoned with—the larger villages must always be avoided, and accommodation must be sought in single isolated farms, which, by their position, are in a measure secure from surprise, where the fighting force can be kept together, where there is nothing to fear from the inhabitants, and which can be quickly abandoned, if possible, unobserved.

The service of security in such situations must be carefully organised and must not consist merely

of guarding the immediate environs. It will rather be advisable to push forward posts on the chief lines of approach of the enemy, which will be able to bring in timely news of his advance. What degree of readiness for movement is maintained in such situations the circumstances of the moment must dictate.

In this question of accommodation, attention must also be paid to the service of communication. It must be possible from the position selected for the night to pick up communication with our own troops and to receive the orders and instructions which will naturally be expected at the end of the day.

If the squadron is provided with the light-signal apparatus it should remain in the neighbourhood of high ground, from which it is thought possible that communication may be picked up. If instructions have been received to establish communication by mounted orderlies or cyclists, care must be taken that there are roads easily found, even in the dark, by which they can reach the main body, the reporting centre, or the relay posts, as the case may be. The squadron's own reports, too, will often not be sent off before evening, in order that all the events of the day may be collated. This must be done in clear, concise form, more especially where the means of transmission is the telegraph or light-signal.

The sifting and collating of information re-

ceived is therefore an important and very responsible task, requiring continual practice. The squadron leader must be able properly to judge which of the reports received must be sent to the army Head Quarters or to the cavalry commander, and all superfluous matter must be eliminated. All reports received should by no means be transmitted. This would overburden the service of transmission to no useful purpose.

3. *Distant Patrols*

The duties of the distant patrols are just as difficult as those of the reconnoitring squadron, as they are continually brought face to face with the necessity of forming independent decisions, and, in order to act and report efficiently, require a high degree of strategic insight. Apart from the personal capacity of the officer commanding the patrol, a thorough training emphasising the essential points in its conduct is necessary for the men.

I have already shown the lines on which such instruction should be conducted. I would here, however, like to add that the patrol leader, if he is in any doubt, can clear up the situation in his mind by cross-questioning himself. It should never suffice to him that the authority who set him the task veiled his responsibility by general verbiage. The task must be definitely determined; whether negative reports are required

or not, and when and where reports are to be sent, more especially when touch has been lost with the squadron. The complete instructions must of course be confided to the second in command of the patrol, and the general task to be fulfilled to each member of it.

For the conduct of the patrol it is a matter of still greater importance than for the squadron, which has a certain fighting strength, whether it is acting in its own or in hostile country. It will have the same points to consider as in the case of a squadron, but in hostile country its conduct must be still more circumspect, while in friendly country, where concealment is more easy, its action can be correspondingly bolder.

If long distances are to be covered, the patrol should remain on the road until it reaches country where an encounter with the enemy is likely. The passage through large villages peopled by hostile inhabitants is to be avoided.

Horses should not be fed, at least in hostile country, in the neighbourhood of villages or on the main road, but always in a safe place, and a proportion of them only at a time. In friendly country they may best be fed in the larger villages, which the hostile patrols will avoid, but should not halt on the main road.

When the locality is reached where a meeting with hostile detachments may be expected, the patrol should advance in *bonds successifs*. It

must, unfortunately, be admitted that such methods appear to be quite foreign to most patrol leaders; at all events, they are seldom applied in manœuvres. Most of them ride forward with praiseworthy speed along the road until they collide with the enemy; then, indeed, they begin to observe him, without asking themselves whether in war the result of such tactics would not have already compromised their chances of success. For if they are once discovered by the enemy they may count on being relentlessly hunted and pursued, so that there will no longer be, in most cases, any further possibility of deliberate observation.

Very different indeed are the circumstances when, from a well-chosen point of view, a patrol is successful in detecting the enemy before coming into immediate collision with him. The patrol can then order the whole of its conduct according to its knowledge of the enemy before it is discovered, and has a very much greater prospect of attaining good results.

We must lay down here, once and for all, that the distant observation with the glass is by far the most important; it affords the best survey over the general conditions, and a better possibility of sending back a report safely and quickly. It is just in this method of observation that, in consequence of our peace conditions, patrols are generally so badly trained. Again and again

they fall into the error of approaching too close to the enemy and, in order to see as much of him as possible, let him march past them. They are then compelled to send in their reports from places which lie behind the belt of the hostile service of security. The despatch-riders have then to ride from the rear through the hostile advance-guard, outposts, and patrol system.

In peace, where there are no bullets, and prisoners may not be made, these methods lead to the best results, and to their being employed again and again, particularly if the superior commanders are inclined to praise such too complete information instead of condemning it. In truth, it is the worst system that could be conceived. Properly speaking, such protracted observation is only possible under certain circumstances; for instance, if the outer flank of the enemy's advance has been turned, then perhaps there might be a chance of sending reports round the flank of the hostile zone of security. It should, however, be quite inadmissible for a patrol to remain in this manner *between* the hostile columns of the enemy's army. Unless it were unusually lucky, it would quickly be detected and captured; more particularly, if the inhabitants were hostile.

It is quite another matter where a hostile screen has to be broken through. This can generally only be accomplished by fighting; and it is the first duty of the reconnoitring squadron to break

through the enemy's screen. Patrols also, which in such a case have succeeded in getting behind the enemy's outpost-line, cannot count upon sending back messages as they please. It will only be a question of a rapid offensive through the screen towards the main body of the enemy. The patrols will then be surrounded, and must at once proceed to effect their return, and only report what they have seen when they have successfully broken back again through the enemy's screen. Despatch-riders have, in such a case, small prospect of getting through. The less it is possible to observe and report, the more carefully must the points for breaking through be chosen, and attention must therefore be paid to reaching good points of vantage that command a view of places of probable importance.

The time chosen for observation is also of great importance. The enemy can best be observed, and his strength and intentions appreciated, when he is on the move. Marches are generally undertaken in the morning, and towards the evening one may expect to find the enemy in quarters. Under such circumstances observation is difficult. The patrol leader must therefore arrange to reach in the morning those points from which he expects to be able to observe the enemy on the march. He will then be obliged in most cases to fall back before the advancing enemy, and will endeavour to ascertain his halting-place and the

approximate line taken up by his outposts. If a distant patrol should be successful in obtaining such information it will generally have done as much as is expected of it. It is for the tactical close reconnaissance to send in information as to details. From the distant reconnaissance it is only required to form the foundations on which the Head Quarters can base its decisions. This fact should be borne in mind while reporting on the enemy.

These duties can for the rest be only carried out under war conditions and against an enemy who is working to the same end, if undertaken in a regular and systematic way and with great boldness.

The patrol leader, therefore, should generally make his plan in the evening for the following day. It will be desirable for him to study the map very closely, and to impress on his memory the main roads and especially points which appear to be suitable for observation. He can thus obtain an impression of the succession of stages necessary for his advance, and judge how he can best spare his horses without prejudicing the success of the reconnaissance.

For a patrol to move *en masse* without scouts, as unfortunately is often done in peace, is altogether out of the question. In war such conduct must often be paid for by the lives of the patrol and the complete failure of the enterprise. A

point must always be sent so far ahead that the patrol will not come under fire at the same time with it. It should never happen that the point collides unexpectedly with the enemy. A rear-guard will also in most cases be found desirable. Circumstances must determine how the flanks can best be protected.

Should the patrol be obliged to ride through country where it might be surprised, it will be advisable first to make a halt and to send on scouts. Manœuvres have repeatedly proved that the point is insufficient in such a case.

It is in most cases quite inadmissible, especially in hostile country, to divide the patrol and to arrange a meeting-place farther to the front. As there will usually be at most but one map available, the detached party will find themselves in the enemy's country without means of locating themselves, probably unable to make themselves understood by the inhabitants, and in any case will run the danger of being betrayed by them. It will not even be of much avail if they are given some kind of sketch if they meet with and are chased by the enemy.

I should therefore like to utter a warning against the custom of such division of patrols in peace which could not be carried out in the enemy's country. In friendly country they are possible, but always dangerous. The various detachments having insufficient fighting strength, the

possibility of sending back information will be reduced and a junction will always be doubtful, while any collision with the enemy may make it impossible.

There is another error into which patrols frequently fall in peace manœuvres, and that is, of leaving the road assigned to them for observation without sufficient reason, and of using other roads upon which other patrols are working. Even when a patrol has sure indication that it will not meet with the enemy upon the road assigned to it, it should still remain upon this road, and send back definite negative information, even if no instructions to this effect have been received.

On collision with the enemy's patrols, action must be taken in as offensive a spirit as possible, but after due reflection. Should a charge promise any kind of success, the opponent must be attacked in the most determined way. It will also often be possible to defeat an enemy of superior numbers by a carefully laid ambush. Every success of this kind will increase our own moral superiority, paralyse the enemy's reconnaissance, and facilitate the transmission of information. Before attacking, however, it should always be ascertained whether the enemy is followed by any close support which might turn an initial success into a worse defeat. Thus it does not, for example, promise success to attack the point of an advancing squadron under the

apprehension that it is a single patrol. Making prisoners and carrying them off, or sending them back under escort from the patrol, is to be deprecated. They can generally be rendered harmless by depriving them of their horses, arms, and boots. Good captured horses, however, should be always used, either to replace the tired cattle of the patrol, or led with it in reserve.

Should the patrol meet with a superior force of cavalry, it must endeavour to extricate itself and to get round the enemy's flank. Under such circumstances the ability to ride quickly and safely across country will be of great service. But it is important, as soon as the patrol is in safety, that it should again reach the road detailed to it, and also that the men should be instructed as to how to avoid the enemy, when carrying messages to the rear, without losing their way.

When a patrol has been successful by judicious riding, determined fighting, and clever avoidance of the enemy, in obtaining information as to the enemy, it is of the utmost importance what information is to be sent back, and when and how it should be sent.

As I have already indicated above, the patrol must be perfectly clear as to what facts are most important from the Head Quarters' point of view. If the opposing armies are still so far apart that a collision cannot be expected, only

those matters that are of strategic importance need be ascertained and transmitted: *e.g.* number of the hostile columns, objective of the day's march, any circumstances that lend themselves to a conclusion as to alterations in the enemy's direction of march or the combination of his forces. In such a case there is no need for information as to details. The closer, however, the opposing armies approach one another, the more does information which is of tactical significance increase in importance. It is not always advisable to confine oneself to reporting the bare facts. It will often be desirable to indicate also the process of reasoning by which the reporting officer arrives at his impression, for this originates from a number of *imponderabilia* which cannot always be detailed in a report. When this is done, it must be thoroughly and carefully considered how far this personal impression is dependent upon facts, or if it does not rather rest upon certain feelings, as to the cause of which no clear account can be given. Should the latter be the case, the personal point of view is best left out. Preconceived opinions originate but too easily in war, and may lead to a biassed interpretation of reports, and, consequently, to faulty dispositions. The facts must always be weighed with sober impartiality. Only thus can a true and definite appreciation be arrived at.

The same naturally holds good for those reports

which are sent in from the reconnoitring squadrons or other reporting centres. The method in which such information is sifted for passing on brings into play, in a certain sense, personal conceptions. It is therefore all the more necessary to reflect seriously over their preparation.

It is imperative that any important information should reach the Head Quarters of the army or the Great Head Quarters as early as possible, at all events, early enough to allow of the measures rendered necessary by the enemy's movements to be initiated and carried out. The patrol leader must therefore consider the time requisite for a wheel or other such movement of a modern army in order to calculate what is the latest time, under any circumstances, that his information must be sent in. It is obvious, and has already been demonstrated, that he should be instructed as to the advance of his own army in order that he may be able to appreciate these matters.

As already stated, it will, as a rule, be necessary for a distant patrol only to send in two messages daily. The first contact with the hostile infantry must always be reported. It will generally suffice if the direction of march of the enemy and the march-objective reached by him are reported. It will often be desirable to send back only a single report, setting forth the events of the day. On the other hand, the method of despatch of such messages must be most carefully

prepared. During the advance of the patrol the leader must call the attention of his men, more especially from any good look-out points, to any prominent features passed. He must make marks at difficult places, and where the main roads have to be left, to assist them in finding their way back.

Reports should only be sent from some point from which the despatch-riders have, at least to a certain degree, a safe route, where they will not have to pass through any hostile outposts, occupied localities, or defiles. It is highly desirable to continually instruct the patrol as to the route to the rear, and as to its conduct under special circumstances, and to give it a sketch of the road. The latter should contain not only names, which will not be of much use to the patrol, but characteristic marks which may be used as points of orientation,—forked roads and the like—to assist the men in choosing the right road. Orderlies should be told the general contents of messages which they carry.

It is quite out of the question that in war, and especially in hostile country, despatch-riders will be allowed to ride about free from harm, as they are unfortunately allowed to do in peace. The endeavour to send many, and often superfluous, messages by a few men always eventually leads to the sending of single horsemen as despatch-riders. Such a custom, which in war must lead

to disastrous consequences, cannot be too sharply reproved.

Single orderlies, in hostile country, cannot be sent, except where they know the district, and where collision with the enemy's patrols is out of the question. When long distances have to be covered, there is also the danger that a horse may succumb, or that the inhabitants may stop the man. The fact that, in the Franco-Prussian War, the custom of sending single despatch-riders proved itself generally, if not entirely, sufficient must not be regarded as of great significance, as at that time there was no question of having to reckon with the opposition of hostile cavalry. In a modern war it will certainly be different, and we may be quite sure that the cavalry of each army will strive its utmost not only to reconnoitre, but also to prevent the enemy reconnoitring. The distances to be covered, also, will be very different from those of 1870-71.

The single despatch-rider, therefore, especially in the case of the distant patrol, must be replaced by a reporting patrol. This can best be formed of three men, who can mutually support each other, and, should they meet with the enemy, have more chance of escape than a single horseman. For very important information, and against strong opposition, several such patrols must be sent by different routes. In friendly country, where the population will give all

possible support, the single despatch-rider can, for short distances, be more often used, and the reporting patrols can be made weaker according to circumstances.

These circumstances must determine, as we have seen, the strength of patrols, and the time which they can stay out without relief.

Patrols must choose their accommodation for the night with great care. It is obvious that for them, as for the reconnoitring squadrons, it is of great importance whether they are in their own or hostile country.

In their own country it will often be safer to seek shelter for the night in the larger villages, because such places will, as a rule, be avoided by hostile troops. It is, however, not only a question of safety, but also of keeping the road confided to them in sight during the night, and of interrupting the transmission of the enemy's intelligence, which will, like our own, be most active after dark. His despatch-riders, however, will most probably endeavour to avoid villages. For the rest, patrols in their own country can choose their accommodation freely according to the situation, and can at least always get under cover, even when in the neighbourhood of the enemy.

In hostile country, however, the conditions are different. Isolated and far distant from support, the patrols run great danger, even from the

inhabitants themselves, and should never try to spend the night in enclosed villages or farms. If they wish to get cover for the night, they must look for single houses close to the road, and take measures that the inhabitants do not betray them to any of the enemy's troops or to partisans that may be in the neighbourhood. They must also be careful to keep a good look-out and be ready to get away at a moment's notice. They should not, however, as long as it is possible, lose sight of the road detailed to them until absolutely forced to, but should watch it by an advanced post in order to interrupt the enemy's transmission service.

When in the presence of the enemy, it will be advisable not to seek shelter, but to spend the night in woods, or at all events distant from localities where forage or food has been requisitioned. Horses may then be off-saddled and fed, singly or by groups, according to circumstances. Special measures of safety are also necessary under such circumstances.

It is of great importance to establish communication with the reconnoitring squadron during the night halt, and to adhere closely, when it is at all possible, to any arrangements made with it. It may very easily happen, as we have seen, that the task of the reconnoitring squadron may be changed, and that it may be required to operate in new directions. It is, therefore, important that the patrols do not get lost to the

squadron, but are in a position to receive fresh instructions. The patrols can also utilise this opportunity for receiving reinforcements if necessary.

The patrol may sometimes lose connection with the squadron; it will then be generally most advisable for it to remain in observation of that portion of the enemy which has been found upon the road allotted to it. If this should entail a change of direction, reports should be sent direct to that portion of the army which is assumed to be the nearest according to the general situation. This must not, however, be regarded as a hard-and-fast rule. It should rather be left to the independent decision of the officer how he will act in the particular case. Independence of judgment and of character are of the highest importance, especially when on patrol. These qualities can, however, only be effective if cavalry officers are instructed as to the conditions of modern armies and are quite clear in theory as to the duties and methods of conducting patrols. It is to be hoped that they will in future realise the obligation of applying themselves most seriously to this branch of their important duties, that they may be thoroughly prepared and capable of the greatest effort when the call to arms resounds in bloody earnest through the land.

4. *Close Reconnaissance and Reconnaissance during the Fight*

Within certain limits determined by the various crises of the fight the reconnoitring duties of the cavalry are continuous. As the hostile armies approach one another, distant exploration merges into close reconnaissance, and from the latter evolves the battle reconnaissance, when the heavily charged thunder-clouds of war come into collision, and the brazen dice of battle are thrown.

Within these limits the arrangements made for reconnaissance should not require fresh dispositions, but merely supplementing as they gradually develop from strategical into tactical measures. This is a matter for consideration when detailing close patrols, as the tendency is to be too prodigal of the scanty force at disposal. When the army cavalry concentrates towards the flank of the army, the detachments of it which have been carrying out the reconnaissance against the enemy's front must be gradually relieved by the divisional cavalry. The army cavalry will only be able to assist the divisional cavalry in the close reconnaissance by the action of those portions of it which may fall back behind the front of their own army. In such a case all should be placed under a single command, to prevent useless expenditure of force and con-

tradictory orders. Whether the divisional cavalry is to be reinforced by the army cavalry or *vice versa*, or whether a separate sphere of action is to be assigned to each, must depend on circumstances.

It will, however, seldom happen that the army cavalry will fall back behind the front of its own army. It will nearly always be most advantageously placed on the flank of the army, and will therefore only have to carry out such reconnaissance as is possible from this position. Such reconnaissance, however, is generally the most important.

As already indicated, the reconnoitring squadrons will gradually fall back upon the army cavalry itself, or upon the advancing columns of the main army which will now be approaching them. The reconnoitring squadrons on the outer flank will, however, be well advised not to join themselves at once to the main body of the cavalry. They must rather seek to operate against the rear of the enemy, who is already deployed, or against his lines of advance, in order to be able to report the presence of any approaching hostile reserves as early as possible. As a single example of this, had the French at Mars la Tour acted in this manner they would very soon have discovered the approach of Wedel's Brigade and its approximate strength. They would not then have been surprised by the attack of

this brigade nor would they have mistaken it for the advance-guard of the Third Army. One may well assume that after dealing with Wedel's Brigade the French would, under such circumstances, have proceeded to undertake a general offensive, and that the fortunes of the day might have been with them.

The close reconnaissance before the decisive battle must seek, above all things, to obtain an idea of the grouping of the hostile forces. Herein lie the conditions of success or failure. To this end endeavours must be made to get far round the front of the enemy and to observe as many lines of approach as possible. Rapid and distant patrol riding and the straining of every nerve must be demanded in such cases.

When the whole force is to be employed, the army cavalry must endeavour to pave the way for these patrols. If it has been possible to defeat the hostile cavalry before the decisive battle, this will be comparatively easy. Otherwise, every means must now be employed to bring about this decision and to carry it to a successful conclusion, as well as to deal with other troops which may seek to cover the enemy's flanks.

That the position of the army cavalry for such duties should not be in rear of a flank of its own army need scarcely be emphasised. It should rather strive with all energy to *échelon* itself in advance of the wing of its own army and to

maintain itself on the enemy's flank. It will thus be in a position during the period of close reconnaissance to support its own reconnoitring organs and either to join the battle, or operate against the flanks and rear of the enemy.¹

As to the close reconnaissance patrols and the combat patrols, as clear and definite orders must be given them as to the distant patrols to operate in certain particular directions or block certain roads. The arrangements for their return or relief must leave no room for doubt if it is desired to be independent of the discretion of the patrol leader, and to be convinced that the observation in all important directions is being carried out.

It will often be necessary, especially during the period of close reconnaissance in flank or rear of the enemy, to make the patrols strong enough to be able to fight their own way, for it will generally be impossible to support them

¹ Compare "Unser Kavallerie im nächsten Kriege" ("Cavalry in a Future War," translated by Sydney Goldman), and paragraph 522 Cavalry Drill Regulations :

"During a *battle*, it is the duty of the army cavalry to operate against the enemy's flanks and rear, to attack his shaken infantry and unprotected artillery, to protect the flanks of its own army, and to prevent hostile reinforcements reaching the field of battle. According to the result of the encounter, it takes up the pursuit or covers the retirement.

"For such activity, the army cavalry will find opportunities on the *flanks of the battle field*. A position in front of the flank of the main body will facilitate the attack and, at the same time, constitute a threat. This position is also well adapted for clearing up the situation."

from the rear. Should it be found impossible otherwise to break through the thick screen of the hostile service of security, whole squadrons may operate as patrols, and must exert all their endurance and speed to attain their object.

When a decision is impending, it is of the greatest importance that the service of transmission should be especially swift and sure, for there will be but little time available in which to make fresh arrangements to meet any newly ascertained movement on the part of the enemy. It will be necessary under such circumstances to supply even patrols with the light-signal apparatus, even though there is a danger that these may be lost. If they are able somewhere from the rear of the hostile army to flash back an important message *in time for it to be of use* they will fully have answered their purpose. It will of course be impossible under such circumstances to establish permanent stations. Before the departure of a patrol the men must be carefully instructed as to the point that will most probably be chosen as a receiving centre, and must make a mental note of its position on the ground, and also of those places from which it is hoped to send back intelligence. They must endeavour to escape the enemy's notice and to avoid his pursuit. When necessary, they must be prepared to fight for possession of that point from which they expect to be able to

transmit reports. That any intelligence transmitted by signal must also be sent to the rear by a reporting patrol, goes without saying.

In such situations the activity of the cavalry must be increased to the utmost, and their action characterised by feverish energy. The last drop of blood and the latest breath of man and horse must be devoted to fulfilling the task of reconnaissance.

It is obvious that in such periods of crisis cavalry cannot go into quarters for the night, whether in friendly or hostile country. It will be best for them to remain concealed in woods, where they will, as a rule, be discovered with difficulty. For the rest, the night is the time which will generally be used for transmitting reports. In friendly country the assistance of the inhabitants must be used for this purpose as much as possible. The enemy must continually find himself moving in the close meshes of a net of hostile enterprise. In hostile country it will be necessary to requisition supplies by force, but this should never be done in the area in which observation is required. Where requisitions have been made in the neighbourhood of the enemy, patrols should quickly move away, in order not to be surprised, as Count Zeppelin was in the Schirlenhof, before the battle of Wörth.¹

¹ On July 24, 1870, Captain Count Zeppelin, of the Württemberg General Staff, with a patrol of 3 Baden officers and 8 dragoons, crossed the Rhine at Lauterburg, with orders to ascertain certain of the French dispositions. Reaching Selzbach, after various encounters,

For the reconnoissance on the battlefield itself—in contradistinction to the energetic action in the flanks and rear of the enemy—officers provided with good glasses must be employed. The scissors telescope, which no higher cavalry leader should be without, should also be used for this purpose. Observations should be made, when possible, from some secure place, and endeavours made to recognise the moment for action and intervention in the battle. Observation carried out by patrols from the front during the battle of the measures taken by the enemy is unpractical and only possible in peace, and is a procedure that is the outcome of the requirements of leaders lacking in determination, who wish to be continually informed down to the smallest details about the enemy, instead of trusting with self-confidence to the compelling force of their own measures. Patrol service during the battle itself is a matter for the infantry, and can be carried out by no other troops.

and finding it occupied by French cavalry, the patrol took refuge on the 25th in the little inn at Schirlenhof for a well-earned rest. Here they were surprised by a squadron of French hussars, who had received information of their presence from a boy at the inn. The inhabitants having locked the Germans' horses into the stable, nothing remained but to fight or surrender. The brave Germans chose the latter course. Lieutenant Winsloe here killed was the first casualty of the war on the German side. The whole patrol was finally killed or captured, with the exception of Count Zeppelin himself, who escaped on one of the French hussars' horses. This officer succeeded after a nine hours' ride in winning his way back across the frontier with valuable information.—TRANS,

II. RECONNAISSANCE BY THE DIVISIONAL
CAVALRY

Generally speaking, the conduct of the various reconnoitring organs of the divisional cavalry will be regulated according to the same principles as hold good for the army cavalry. As for the latter, so is it a matter of great importance for the divisional cavalry whether it is acting in friendly or in hostile country. Its methods, too, must be regulated according to its distance from the enemy. It will also endeavour to establish a material and moral superiority over the hostile cavalry. In its relative weakness, however, and its distribution to the columns of the army there must lie certain factors which will leave their stamp upon the conduct of the divisional cavalry.

First of all it is important what part the division to which the cavalry belongs plays in the general scheme. Various cases can be conceived which may have no inconsiderable influence on the character of the reconnaissance which the divisional cavalry must carry out.

It may belong to a column which is advancing between others, and where it has but a comparatively small front for reconnaissance allotted to it. The army cavalry may be in front of it. Or it may be given the task of carrying out the frontal reconnaissance inde-

pendently. The latter case must be considered the most usual in a great army, when the concentration of the army cavalry in the decisive direction takes place. Or again, it may belong to the flank column of an advancing army, which may or may not be covered by the army cavalry. Finally, it may be part of an independently operating, more or less detached force, and have to perform all the cavalry duties for it. In the last case it will generally be advisable to strengthen it, if possible, from the army cavalry; but in any case its methods will necessarily be of a different kind.

The most simple case is where the front upon which the divisional cavalry finds itself is covered by the army cavalry. It is then most important to keep up communication with, and to be continually informed of the intentions of the army cavalry, in order that the duties of reconnaissance may be taken over whenever the army cavalry is compelled to clear the front by a flank movement or to uncover the flank. The reconnoitring organs of the divisional cavalry must then be sent forward early enough to effect a relief of the corresponding detachments of the army cavalry, so that the service of observation of the enemy in the first line will not be interrupted.

Where the divisional cavalry cannot rely upon the army cavalry for assistance in reconnaissance the conditions are different.

This leads to the question of the strategical exploration. These duties—in contradistinction to those of the army cavalry—will be distinguished by the fact that the divisional cavalry cannot advance as an independent unit separated from the mass of infantry, but must remain in continual conjunction with the detachments of the other arms to which it belongs. It is, on the one hand, too weak to be able to operate independently, and, on the other, is bound to the column of the other arms by ties of local service, which at any moment may make fresh demands upon it. It will therefore not be denied that the divisional cavalry, if it would reconnoitre, must cleave to the infantry. Its method of procedure will rather be to advance from point to point with those portions of its strength which can be spared from the local service of the division. In so doing, it must arrange for support in case of necessity during the fight from the rear, and can rest at night covered by the infantry outposts without being compelled to march to the rear. To take its own measures for security would make too great demand upon its strength, and would quickly deplete it. Only when the distance from the enemy renders an attack out of the question can the divisional cavalry remain in advanced positions. This consideration, also, must have its due influence on the method of advance adopted.

The advance by stages from one point of vantage to another, according to the map, or from one defensible locality to another, will be found advisable. The divisional cavalry, like the reconnoitring squadrons, should always be surrounded by a close screen of local patrols, which will ensure its immediate safety and concealment.

In this lack of freedom in the conduct of the divisional cavalry two facts become apparent. Firstly, that only in very rare cases will the divisional cavalry be able to clear the way for its patrols, as the army cavalry will continually have to do. It is generally indeed too weak to fight independently with any prospect of success. It is also, as we have seen, locally dependent, and cannot advance with full freedom even where hindrances to the reconnaissance demand its intervention. Secondly, only in exceptional cases will it be feasible for the divisional cavalry to immediately support its patrols by reconnoitring squadrons.

If the army corps is marching in two columns, the cavalry of each is obviously too weak to push forward squadrons of this kind perhaps several days' march ahead, and, when necessary, to provide for their relief. Somewhat different are the conditions of the advance of a corps upon one road. If it is accompanied by columns on each side, it will generally be possible to

mass the greater part of the cavalry of both divisions at the head of the corps, and it will then at times be possible to push forward a reconnoitring squadron. In the case of a flank column, however, the cavalry of the rear division will generally be occupied with securing the flank, and will therefore not usually be available for reinforcing the reconnoitring cavalry in front.

The divisional cavalry will thus usually be able to detail only weak patrols for the distant reconnaissance, and these will often have to reckon with superior hostile cavalry. At least the conditions which obtain in the army of our probable opponents compel us to make these presumptions. The reconnoitring patrols of the divisional cavalry must therefore rely chiefly on cunning and speed in carrying out their duty, and will only be able to attack under especially favourable circumstances, where the enemy whom they meet has no support behind him, or can be attacked with obvious advantage. It is far more important for them than for the patrols of the army cavalry to gain contact with the enemy unsuspected, and not to betray their presence. They must always try first to get distant observation of the enemy, as they will have no fighting support behind them to help them to break through the hostile screen of patrols and win their way to the head of the enemy's columns. Their reports,

also, will have to be brought back through the enemy's cavalry.

The distant patrols of the divisional cavalry will therefore often be obliged, even in their advance, to avoid the main avenues of approach of the enemy, as upon them the enemy's cavalry is certain to be met with. They must use secondary roads, and as secretly as possible, a matter of considerable difficulty in unknown hostile country. To avoid possible ambush they should retire by a different road from that by which they advanced. They will very rarely be able to get under cover for the night, especially when in the enemy's country.

Such duties can only be successfully carried out, if at all, where the commander has at his disposal a number of efficient officers and under-officers, and horses trained to endurance and cross-country work. In order to be able to carry out their task properly, the men must be clever, determined horsemen, well trained in the use of their weapons, and resourceful. They must also be absolutely reliable men, who will not shrink from encountering odds when necessary. In such patrols as these the cavalry spirit must be developed to its utmost.

It is a somewhat easier matter if the divisional cavalry is not confined to a purely frontal and limited area, but can reconnoitre from the head of a flank column. It will then get opportunities of

obtaining observation by moving round the enemy's outer flank. It will, however, only succeed in obtaining and transmitting intelligence by wide détours, and the demands on the endurance of man and horse will be great in proportion. It is obvious how necessary it will be, under such circumstances, that the intelligence so hardly won should at least be transmitted quickly and safely. Some detachment must therefore be detailed to perform the duties of the reporting or communicating station usually formed by a reconnoitring squadron. I see nothing for it but to devote bodies of cyclists to this purpose, which can be pushed forward as reporting centres on the main avenues, and equipped, whenever possible, with the light-signal apparatus. A few mounted men must be sent with them for scouting purposes. Without these, they would be confined to the roads for the close reconnaissance of the surrounding country, a procedure which would not suffice in the face of a determined enemy, especially in difficult country.

Besides the distant reconnaissance, the close reconnaissance along by far the greater part of the front of the army falls to the lot of the divisional cavalry. As we have seen, the army cavalry will only in exceptional cases be able to support it in this task as, on the near approach of the enemy, it will probably have occasion to draw off to a flank. But nowadays this close

reconnaissance appears, by reason of the increased distances and the greater range of firearms, to have become considerably more difficult. Hostile armies move to battle nowadays on a front of 50 to 100 miles.

That it has naturally become much more difficult under such circumstances to estimate the enemy's strength and to obtain the necessary knowledge of his dispositions and of the ground, no further proof is needed. It thus becomes possible for the cavalryman in general to get no closer to the enemy than his rifle will carry, and to be compelled to observe him from a distance. There should be no mistake about this.

The importance of observation has grown in proportion to its difficulty. Troops nowadays have to be deployed for the fight at long ranges, where it is practically out of the question that a commander will be able to survey the enemy and the country with his own eyes, as was formerly almost invariably the case. Should, for example, the opponents be advancing towards each other and still 5 miles apart, another $1\frac{1}{4}$ miles will bring them into effective artillery range of each other. If they are going to wait to deploy until they reach this point, the deployment will have to be completed under the fire of the enemy's guns, a thing which, of all others, is to be avoided. It therefore follows that in a battle of encounter deployment should take place, at the latest,

when still 5 miles distant from the enemy. It is better to begin to draw the forces apart even earlier, so that the army is already deployed when it moves into the range of the enemy's shrapnel.

Under these circumstances it will usually be quite impossible for the leader to make his dispositions according to his personal observations. He is, rather, almost entirely dependent in his appreciation of the enemy on the reconnaissance of the cavalry, and may find himself at a great disadvantage if this should fail or lead him to erroneous conclusions.

Reports as to the character of the country, suitable positions for artillery, decisive localities or points, thus increase greatly in importance, and it is obviously most necessary for cavalry officers to be able judiciously to appreciate such matters and to report them clearly and intelligibly. The tactical conduct, and at the same time tactical success, will often be as dependent on the tactical reconnaissance of the divisional cavalry as the strategical measures of the commander-in-chief are upon the results of the strategical exploration of the army cavalry.

Tactically and strategically the service of the divisional cavalry is of equal importance if it belongs to a force operating independently. In such cases it will often be obliged to move with more freedom than when employed in purely

frontal reconnaissance with the main army. For rest, also, it will not always be able to seek the protection of the infantry, but will frequently have to be pushed out for the night on the flanks, in order to secure the main body while at rest from these directions, or the better to observe the enemy. It should, however, never lose its immediate connection with its force, and will therefore not always be in a position to measure its strength with any hostile cavalry that may be met during the period of reconnaissance.

When the tactical decision is in prospect, or when contact has been gained between the opposing forces, the divisional cavalry must redouble its efforts in reconnaissance. It is then a matter for it to reconnoitre from the flanks, and such reconnaissance can only be successful, as in the case of the army cavalry, if those portions of the country are occupied from which it is possible to observe the movements and dispositions of the enemy.

It is quite wrong to hang on the flank of the infantry, as is unfortunately often done in peace manœuvres, and to remain wherever possible under its protection, and to expect to force reconnaissance merely by sending out a number of patrols.

In such a situation patrols have generally small prospect of success. They will most frequently come in contact with the hostile screen, which

will prevent them gaining the decisive points of the terrain, and can hinder the despatch-riders but too easily from finding their way to the rear. It is more than questionable under such circumstances whether it will be possible to gain any observation at all, or to send back information in time to be of use. In these moments of crisis, which will be of comparatively short duration, rude force can alone avail, and recourse must be had to the sword. The artillery patrols, too, will only find it possible to reconnoitre successfully under the wing of a victorious cavalry. Their efforts will otherwise have little prospect of success.

Speaking generally, the reconnaissance must remain entirely in the hands of the cavalry leader who arranges it. Should the commander-in-chief interfere without due cause in his dispositions, he deprives him of responsibility and interrupts that systematic conduct of the reconnaissance which is absolutely essential if the strength of the divisional cavalry is to be equal to its task.

Reports, too, should, as a general rule, be sent to that unit of the cavalry from which the patrol is found, and which forms the reporting centre of the patrol. On the other hand, it is the duty of the cavalry leader to remain in communication with the Supreme Command by using all means at his disposal, even relays when neces-

sary, so that all reports may reach the latter by the shortest route. Only exceptionally should patrols report direct to the supreme command, that is to say, when to send their messages through their own cavalry means a useless détour or a danger.

This particular method can, however, only be carried out in practice if the patrol is in continual communication with the cavalry from which it is found. This circumstance indicates also the necessity for detachments that are not limited in their zone of operation to advance during the fight against the enemy's flank, so that they may remain as close as possible behind their own patrols, continually prepared to support them and to hamper the hostile efforts at reconnaissance.

It does not appear advisable under such circumstances to unite all the available cavalry on one wing. It is certainly obvious that its main strength must be concentrated in what is considered the decisive direction, in order that it may be as strong as possible on the field of battle. This desire, however, should not go so far as to denude one flank wholly of cavalry. This flank would then be completely laid bare to the enemy's observation, and would itself be deprived of the possibility of ascertaining what was going on on the enemy's side. It is much more advisable to provide upon each flank a centre of reconnaissance, even if such consists of quite a weak

detachment of cavalry, which will act as a reserve for patrols and a reporting centre. The offensive cannot, of course, be undertaken on the flank where the cavalry is weak, but reconnaissance must be carried out by patrols of scouts, and other action limited generally to keeping the enemy's patrols at a distance.

III. THE SCREEN

The idea of the screen is first touched on in the "Field Service Manual" of 1908; it is also, however, demanded by the conditions of modern war. For however important it may be to gain early intelligence as to the enemy in order thereby to be able to make the necessary dispositions, it is naturally just as important to deprive him of this advantage. Reflection and experience have shown that although the measures of reconnaissance considerably assist the screening if the enemy's cavalry is defeated, they are not of themselves sufficient to secure the army from hostile observation.

The "Field Service Manual" sums up, I think, the chief considerations as regards screening, for the most part to the point, especially where it deals with the defensive screen. There are no war experiences in modern times of this matter, and, according to my opinion, peace experiences are not comprehensive enough to allow

of any appreciable amplification of the "Field Service Manual."

At the same time I would draw attention to some of the points which give occasion for further research and reflection.

In the first place, I think that what the "Field Service Manual" says as to offensive screens requires some explanation. Strong cavalry will be concentrated to keep the enemy at a distance from our own army. *In addition to this*, strong patrols and even cyclist detachments advance along all roads in order to throw back the hostile patrols. These arrangements can only apply, as a rule, for portions of the *army cavalry*. They presuppose, especially if the front of the modern army is to be screened, a mass of cavalry which could with difficulty be found from the divisional cavalry. By such methods, moreover, as long as strong cyclist detachments are not available for blocking the road communications, a cause of dissension will always arise as to how much strength can be used for blocking the roads and how much concentrated for battle, all the more so as the divisional cavalry can only with difficulty be used in this kind of screen.

The latter must, as we have seen, remain more or less locally tied to the division. The army cavalry, however, if it will undertake an offensive screen, must advance against the enemy, seek him out; force him back as far as possible from

our own army, and endeavour to defeat him. For this task complete freedom of movement is necessary—not only for itself, but also for the screen of patrols that will accompany it. The divisional cavalry will thus generally only be able to form a second screening line behind the veil formed by the advancing army cavalry, and will not be in a position to spare for it patrols for the blocking of roads. Nor is it at all clear where the cyclist troops mentioned are to come from.

I am therefore inclined to think that the procedure advocated by the “Field Service Manual” can only be carried out in exceptional cases; and it would perhaps be advisable to alter it somewhat.

The principal task of the offensive screen is, according to my opinion, to defeat the hostile cavalry; and for this object all available force must be concentrated, for one cannot be too strong upon the field of battle. Even such cyclist detachments as are available will be best used by bringing them up for the fight. The blocking of roads, on the other hand, will, as a rule, be only undertaken when the enemy's cavalry has been beaten and thrown back. The screen of patrols can then be strengthened. But it must be quite clearly understood that troops are not to be simply disposed in a cordon; but that a sufficiently strong force must still remain in touch with the beaten enemy in order to prevent him,

at all events, from taking up the offensive again, and breaking through the screen.

Until this moment of victory over the hostile cavalry the duties of screening must be left to the reconnoitring organs and to the divisional cavalry of the army which is following in rear of them.

According to the principles laid down in the "Field Service Manual" it is to the divisional cavalry that the task invariably falls of screening the movements of its division. I think that these duties cannot always be clearly regulated according to the idea of an offensive or defensive screen; they will more often be of a mixed nature. As far as its strength will admit, the divisional cavalry will endeavour to carry out the task by pushing back, by fighting, the hostile reconnoitring patrols and detachments before these have succeeded in gaining observation. As it is more or less locally confined to its own front, and will certainly often have to do with an opponent of superior strength, it will, on the other hand, frequently be obliged to join battle for favourable localities dismounted, supported whenever possible by machine-guns and cyclists from the infantry. In situations where the divisional cavalry cannot undertake an offensive fight against the superiority of the enemy, and can find no *points d'appui* in the terrain, it must try all the more to block the roads with patrols

which will attack all hostile patrols with the utmost determination, and endeavour to capture their despatch-riders. The divisional cavalry must show the greatest boldness and judgment if it will carry out this task. The great importance of its rôle in the army here again becomes obvious.

The army cavalry will only undertake an offensive screen when the army is advancing, and where the country does not afford suitable localities for the establishment of a defensive screen.

Such a screen (defensive), which can eventually be pushed forward from one area to another, is without doubt, as is emphasised by the "Field Service Manual," of much more use than an offensive screen.

Of great importance in a defensive screen is, first and foremost, the nature of the obstacles on which it is based. Watercourses and canals, which can only be crossed by bridges, form the best of these. Extensive woods, however, lend themselves easily to the purpose. They are doubtless, for cavalry patrols, a most unpleasant obstacle, as view is restricted in them, and an ambush may lurk behind every tree. In the campaign of 1870-71 the German cavalry patrols were, as far as I could ascertain, quite unable to penetrate into the wood of Orleans and that at Marchenoir. These woods, by their mere existence, formed an effective screen.

To utilise woods for this purpose it will be necessary, according to the circumstances, the depth and nature of the wood, to post the fighting detachments of the screening line either at the exit of the defile on the enemy's side or more towards the defender's side on the inner edge of the wood, if they can there find a good field of fire. In any case the opposite edge of the wood should be occupied by observation-posts ; in order, in the first case, to get knowledge of and to neutralise any hostile patrol which may, in spite of all difficulties, have penetrated the wood, as soon as they emerge ; and, in the second, to get early information of the entrance of hostile detachments into the wood, and to be able to hinder, report, and observe their further advance.

I think that penetration of such a screen is generally considered to be easier than it really is, especially if the defending cavalry is supported by cyclists, machine-guns, and even artillery. According to my opinion, reconnoitring squadrons would only, under favourable circumstances, be able to break through such a line that has been well disposed, and, even if successful in so doing, would find it even more difficult to return. It should never be forgotten that to overcome well-placed posts, defending themselves with fire action, requires a great superiority of force ; that a squadron can only overcome quite weak detachments so placed, and will, if successful, very

soon find itself confronted by a superior force of the enemy's reserves. Single patrols of picked scouts may perhaps creep through, but their return will be problematical unless they are strongly supported from the rear. It will therefore generally require strong forces of the army cavalry to break through a well-organised screening line composed of moderately strong cavalry detachments, and to maintain the breach so made long enough to carry out the object of the reconnaissance. The place where the screen is broken must in all cases, even where the main body of the victorious reconnoitring cavalry is obliged to advance farther, be so strongly occupied that it will under all circumstances remain open for the service of transmission and for the eventual retirement.

* The greater the advantages of a defensive screen, the more must the divisional cavalry naturally endeavour to avail itself of it, in order to compensate in some measure for its numerical weakness. It will always seek, even during the advance of the army, to choose such favourable areas for an occasional halt, and to reach them by advancing in *bonds successifs*. Such procedure will facilitate at the same time the carrying out of its duties of screening and of warding off hostile detachments by defensive action. In order to secure the greatest possible effect for such action a similar procedure as regards time and space must be arranged with the cavalry of

neighbouring columns, or ordered by superior authority.

During the night, when it is not possible to occupy advanced areas, the divisional cavalry should try to assist the screen by being so disposed that detached posts will lie on the main road in advance of the infantry outposts and at crossroads and defiles, with a view to capturing the enemy's patrols. The erection of temporary obstacles, particularly of wire, will considerably assist this action. In friendly country the inhabitants will be able to co-operate in this, and, by judicious conduct and the procuring of timely and sufficient intelligence, may be of great use to the force. In erecting such obstacles it must always be remembered that our own advanced patrols should be warned of them, or that by some kind of pre-arranged mark upon the road they should be made aware of their presence when returning with reports through their own line. It scarcely needs to be emphasised that such measures should be made use of by the army cavalry as well as by the divisional cavalry, in order to increase their own safety at night.

IV. RAIDS

The idea of the raid has been taken from the American War of Secession. Our new Regulations designate such undertakings as "Streifzüge"

(527),¹ and do not appear to attach overmuch importance to them. Their use is only advocated if a superfluity of cavalry is at hand. They should not, it is said, distract the cavalry from their own duties or from co-operating in the battle (395).²

Whether one agrees with this estimation of the value of such enterprises naturally depends upon the view taken of the co-operation of cavalry in the battle and the general conception of the conditions of modern war. It appears to me that the importance of such undertakings has increased in the same measure as the value of cavalry on the main battlefield has diminished.

The great size of modern armies renders it, generally speaking, impossible for them to live on the country. A modern army marching once through the richest country will nowadays almost completely exhaust its resources, and yet the supplies carried will scarcely suffice to feed the columns during a protracted movement. Armies are far more dependent than formerly on the supplies from the rear—more, indeed, than in the

¹ "Enterprises of long duration by large bodies of cavalry against the enemy's lines of communication separate them from their principal duties. Such raids are to be undertaken only when cavalry is redundant. Sufficient ammunition and supplies must be carefully arranged for."

² "Attempts on the more distant hostile communications may produce valuable results; but they must not distract the cavalry from its true battle objectives. In the event of an engagement, co-operation with a view to victory must be the watchword of every formation, whether great or small."

time of Frederick the Great. In those days, if the bread-wagons ran short, it was possible to fill up from the country. The armies were never so great that this became impossible. The cavalry, indeed, devoted most of its time to foraging, and the soldier frequently bought his supplies, all except his bread, on the spot.

Nowadays the circumstances are quite changed. It is out of the question for the horses of the modern army to find the necessary forage in the country itself. That the men of the great armies of the present day can supply themselves when rations run out remains to be proved. On paper it is indeed often possible, taking into consideration the supplies available in peace; but these calculations cannot hold good for a real theatre of war where concentration has claimed all available resources.

Of the straits to which a great army may be reduced when supplies really give out, the campaign of 1812 in Russia is a good example. There, even during the advance to Moscow, Napoleon's army practically dissolved owing to lack of supplies. Only some 90,000 men of the mighty host arrived in Moscow; only these perished during the retreat. How fearfully the Napoleonic armies suffered and melted away owing to want of supplies gives cause for reflection. In the armies of millions of the present day such conditions become still more perilous. Matters

appertaining to ammunition are of equal importance. The modern army carries enormous masses of artillery with it. All the guns are designed for a vast expenditure of ammunition, and the *rafale* from covered positions and against covered positions will indeed make this necessary. Modern infantry, too, is armed in a manner that will entail a prodigious expenditure of cartridges. The replacement of this expended ammunition is of vital importance. Railways will have to be laid in rear of the armies to cope with these demands. Long trains of wagons and automobiles will move to and fro behind them. On every high-road and in every railway-station magazines will appear, and all operations must come to a standstill and miscarry as soon as this great organisation ceases from any cause to carry out its functions.

I hold, therefore, that such circumstances render a disturbance of the rear communications of an army an important matter. It will often do the opponent more damage, and contribute more to a favourable decision of arms than the intervention of a few cavalry divisions in the decisive battle itself.

The one does not, of course, exclude the possibility of the other. General Stuart, in the campaign of Gettysburg, rode all round the hostile army, broke up its communications, drew hostile troops away from the decisive point, and

was yet in his place on the wing of the army on the day of battle. What this man performed with cavalry and the inestimable damage he inflicted on his opponent are worth studying. The fortune of war, which lay in might and in the nature of things, he could not turn. Nor could he bring the advance of an army to a standstill, because at that period and under those circumstances it was possible for the army of the North to live, at least for a time, upon the country. If we regard his achievement by the light of modern conditions, we shall certainly not fall into the error of underestimating the value of such enterprises. If we compare it with the performances of cavalry upon the battlefield in the latest war, we will be able to obtain a true impression of the degree of importance of modern cavalry action.

I am inclined to think that such enterprises will be of altogether extraordinary significance in a future war; least so, perhaps, during the earlier battles resulting from the concentration, when it will be difficult to get round the flanks of the enemy, but more so during the subsequent course of operations. We have only to imagine what the decisive consequences must have been if General von Werder, and, later, General von Manteuffel, had been in a position to continually interrupt the rear communications of the army of Bourbaki. In all probability the

latter must have capitulated long before it reached the Swiss frontier, always granting that it was successful in getting so far as the battle-field of the Lisaine. The whole crisis of this campaign, which was very nearly ending in the defeat of the Germans, would thus possibly have been avoided.

There are plenty of examples of this. To indicate only one from the history of the latest war, I would call to mind the undertaking of the Russians against the rear communications of the Japanese army.

If this undertaking had been actually directed against the only railway at the disposal of the Japanese army, if it had been carried through by throwing into the scale the whole fighting strength of a really mobile and efficient cavalry, and if it had thereby succeeded in interrupting the supplies of the Japanese army for a period, the whole course of the campaign might have been changed. Victory in this tremendous conflict hung continually in the balance, and it needed but little more weight on either side to turn the scale of the fortunes of war.

The importance of such raids in modern war should not therefore, in my opinion, be underestimated. They are capable rather of exercising enormous influence on the course of events.

Rules, however, cannot be laid down for their conduct. The Regulations indicate, shortly, that attention must be paid to the transport of

sufficient ammunition and supplies, and here, indeed, move in the right direction. It is absolutely indispensable that a cavalry mass destined to carry out such an enterprise should be independent of what it may find in the country and be perfectly free of movement.

The supply and ammunition columns, however, which accompany it, must also be so mobile that they are able to follow the troops closely, even at a rapid pace, as otherwise they will run the danger of falling into the hands of the enemy. The whole force designed for the enterprise must be able to advance rapidly as a concrete whole, and should not be allowed to take up too much room. Resources found upon the enemy's lines of communication and magazines captured must be used for the sustenance of the troops as far as possible. It will then be able to reserve the supplies carried for critical times or for a further turning movement. Any of the enemy's supplies which are not used must be ruthlessly laid waste. His railways and magazines, particularly any important engineering structures, must be thoroughly destroyed, the necessary explosives being carried in sufficient quantities.

In contrast to Stuart's raids, however, one must count on meeting not inconsiderable bodies of the enemy's communication troops, which will probably be capable of rapid reinforcement. This entails corresponding preventive measures.

Hostile cavalry sent to secure the safety of the communications will generally have to be attacked in a determined manner. It may sometimes, however, be more advantageous to avoid it by rapid marching. For the rest, the factor of surprise is of decisive importance. Should the enemy early become aware of the approach, he will generally be in a position to bring up fresh forces, often by rail, and thereby imperil the success of the whole undertaking. Under such circumstances a covered approach, perhaps by night, careful screening, and the interruption of the enemy's telegraph-lines and transmission service are matters to which special attention must be paid. It is also a matter of consideration in the attack on communications and railways to destroy them at a sufficient distance above and below the objective by means of detachments deflected for that purpose, so that the enemy may be prevented from bringing up reinforcements. If the direction of the attack is fixed upon and assured, and if approach and deployment have been successfully effected unobserved, the attack must from the first be carried through with sufficient fire-power and energy to allow the enemy no time for reflection.

It is therefore absolutely necessary that troops engaged in a raid should be of sufficient fighting strength to be able rapidly to break down any resistance. The scanty strength of a division of six regiments is much too small for such an

undertaking in modern war. Stronger divisions must be formed for the purpose, and strengthened when necessary by cyclist battalions. An enterprise of this kind also requires thorough preparation, especially by an extensive system of espionage which will amplify the results of the cavalry reconnaissance. Before such a raid is undertaken all possible information must be to hand as to the conditions in the rear of the hostile army. Mobile light bridging equipment should accompany the expedition, with the necessary complement of mounted engineers. During the advance the cavalry should be surrounded by a screen of patrols, not too far distant from it, so that the enemy will not too early become aware of the expedition, and yet at the same time far enough to guard against surprise. After a successful surprise the force should withdraw with the same speed in order to escape from the enemy's counter-measures. Finally, the chief safety of such enterprises lies in their daring.

The leader of such a raid should be minutely instructed as to the advance and intended operations of his own army, so that he may be able to calculate when and where the decisive collision between the opposing armies will take place. He must regulate his own movements accordingly. As long as the two armies are still distant from each other he can strike the enemy's communications far to the rear, destroying railways and

magazines. The nearer, however, the opponent approaches to his own army, the more closely must he endeavour to hang on the rear of the hostile troops and to interrupt the supply of the immediate necessities, that is to say, to destroy the supply and ammunition columns of the army corps, and to capture the provision and baggage wagons of the troops. If circumstances demand, he must be able to appear upon the battlefield itself on the day of battle.

Keen perception and foresight, rapid decision, and relentless energy are indispensable qualities to the leader of such a raid. The ability to mystify and mislead the enemy will greatly facilitate the carrying out of the enterprise. A considerable measure of cavalry ability is, at the same time, necessary to ensure proper horse management. A combination of all these qualities goes to form the great cavalry leader, before whom, even in modern war, lie great prospects of distinction, if he but understands how to break loose from the routine and pedantry of the day.

B. THE ACTION OF CAVALRY

I. GENERAL

As I have already indicated, the action of cavalry in the fight may be divided, according to its character, into two quite distinct groups ¹—

¹ Compare "Cavalry in Future Wars," chapter on Tactical Leading in Mounted Combats.

i.e. the fight of cavalry acting independently, and to which is detailed only a small proportion of the other arms ; and the intervention of cavalry in the battle—in the great decision of the other arms.

It has been proposed, even for the cavalry, to divide tactical principles according to the idea of the prearranged battle and the battle of encounter. I do not however think that this grouping will meet the case. In a great battle the fighting is always of a prearranged nature ; in the fight of the independent cavalry it is possible to distinguish between an encounter and an arranged affair. On the other hand, the conditions of prearranged action in a battle and in an independent conflict of the cavalry are quite different, and cannot be examined from a single point of view.

The grouping, then, proposed by me is still that which best corresponds to the actual circumstances. In this grouping, in the first case, the cavalry appears as the chief arm, whose spirit and character set the tone of the whole nature of the fight ; in the second, it is merely an auxiliary, and must conform to the law of the other arms in great matters and small.

But the fight is deeply influenced, even in the first case, by the co-operation of these other arms, and I believe that only in exceptional cases will a purely cavalry combat take place, at all events on

a large scale. Where squadrons, regiments, and perhaps even brigades unassisted by the other arms, come into collision with each other, the charge may still often suffice for a decision. But where it is an affair of larger masses it will never be possible to dispense with the co-operation of firearms, and in most cases a combination of cavalry combat, of dismounted fighting and artillery action, will ensue.

We must not conceal from ourselves the fact that in a future war it will by no means be always a matter of choice whether we will fight mounted or dismounted. Rather, by himself seizing the rifle, will the opponent be able to compel us to adopt dismounted action. On our manœuvre-grounds the charge on horseback is always the order of the day, even against artillery or machine-guns. The umpires continually allow such attacks to succeed, and the troops ride on as if nothing had happened. Equally fearless of consequences do they expose themselves to rifle-fire. But there are no bullets.

In real war it is different. Even then many a charge will naturally be successful, but victory will mean such sacrifices that the troops will often become too weak to carry out their further tactical and strategical duties. Such losses will not be incurred without necessity, and troops will give way, where possible, or themselves adopt dismounted action. The last will often indeed be

necessary, as space and time will frequently be wanting for a turning movement, and even if such a movement were undertaken it would often lead to a fresh obligation to fight on foot in another place. This was repeatedly proved by the events of the campaign of 1870-71. Again and again was it necessary to detail infantry to the cavalry divisions in order to brush aside by offensive action resistance that hindered the advance of the cavalry, and which could not be broken down even by the horse artillery which accompanied it.

That the English in the South African war were finally repeatedly successful in forcing the mounted Boers back by turning movements without actual attacks proves nothing for European conditions. The explanation lies in the clumsiness of the Boers, who were hampered for rapid movement by their wagons and possessed no offensive strength of any kind, at least during the decisive portion of the campaign. Otherwise they could easily have anticipated the efforts of the English at a turning movement by the shortest line, or would have been able by taking the offensive to punish the dispersion that the turning movement entailed. We must not fall into any misconception of the fact that turning movements always contain an element of danger and can often bring about very unfavourable situations. They lay bare our own communications or lead to dangerous dispersion of force. It is necessary too,

not only to *see* behind the enemy, but also to *defeat* him, in order to gain a *free hand* for reconnaissance. To this end we will have to attack, and often on foot, as we may be quite sure that our possible opponent will use the rifle.

Circumstances have distinctly altered since 1870-71. If we had at that time no real cavalry opponent to face, we may yet be certain next time of having to deal with a numerous and determined cavalry who will quite conceivably endeavour to meet us in shock action with the *arme blanche*. There will always be dashing soldierly natures everywhere who will make a bid for success by risking all. Whether the hostile cavalry, once beaten, will return to the attack, is more than doubtful. I do not think so.

It lies deeply embedded in human nature that he who feels himself the weaker will act on the defensive. Both opponents will often endeavour to exploit the advantages of the defensive. It frequently happens during manœuvres that the cavalry endeavours to seize some commanding position, and so force the enemy to attack it under the fire of artillery posted there. The other side, however, may make corresponding endeavours. An indecisive artillery duel is the usual result of such efforts. But if such action is frequent in peace, how much more frequent will it be under the pressure of responsibility

which war brings with it, especially where one side is tactically the weaker?

It requires an enormous moral strength, personal influence over troops, and firmness of character to be able to maintain the offensive spirit, even after an unfavourable conflict, and continually to invoke the ultimate decision anew. In general, it may be relied upon that defence will be carried out according to tactical defensive principles, and that with the firearm. There can be no doubt upon that point to those who have studied human nature by the light of military history.

Our probable opponents, too, will certainly often advance dismounted. At all events they are endeavouring to strengthen cavalry divisions by cyclist battalions and infantry, and perhaps by mounted infantry, and thereby already show a remarkable inclination to conduct the fight, even of cavalry, with the firearm, and only to use their horses as a means of mobility, as was the custom of the Boers in Africa.

The rôle of cavalry in the fight will then apparently consist of a combination of the various methods of fighting. In explanation of this view I would cite a well-known example.

The task of the German army cavalry in the battle of Mars la Tour was to relieve the left flank of the German army by a determined attack against the right of the French, and thus to bring the apprehended advance of the enemy to

a standstill. It did not accomplish this task, but was satisfied with trying conclusions with the French cavalry; but did not either win a decisive victory over the latter nor reap the necessary tactical benefit from the action. It certainly maintained its superiority over the enemy, but it made no attempt to interfere decisively in the course of the battle itself. This honour was left to the 1st Dragoon Guards.

But if we assume for a moment that this cavalry, after driving the French from the field, had made an attempt to operate further against the right flank of the French army, Cisse's Division, how would matters have stood?

The French infantry had occupied the Gréyère Farm as a support to their right flank. The Chasseurs d'Afrique, on the other hand, who initiated the cavalry fight, retired after they had been beaten by the 13th Dragoons in a northerly direction, and occupied with dismounted fire the southern edge of a small wood near Ville sur Yron, which the French call Bois de la Grange and the German official history Bois de Gréyère. It is bordered on the south by the plateau of Ville sur Yron. The dismounted Chasseurs here formed an échelon behind the right flank of the French infantry.

How should the German cavalry have acted under such circumstances in order to gain contact with the right flank of the French infantry so

protected? The strongly occupied Gréryère Farm commanded the crossing of the Fond de la Cuve, which stretches in a northerly direction from Mars la Tour towards Château Moncel, while to the north the wood occupied by the Chasseurs limited freedom of movement. What else remained but a determined attack of both objectives and their capture, and that on foot? Artillery alone would not have sufficed against the Gréryère Farm, for this point would have had to be strongly occupied with riflemen, and nowadays also with machine-guns, before the crossing of the Fond de la Cuve which the farm commanded, and which divided our cavalry from the French infantry, could be accomplished.

We can thus see that even in the action of cavalry in battle the combination of the several methods of fighting can scarcely, if ever, be avoided. In flank and rear, also, the opponent will endeavour to secure himself by occupying points of support as soon as he becomes aware of our intention to operate in these directions. Our cavalry must thus be continually prepared to pave the way by dismounted action for the mounted combat.

Our new Regulations mention quite incidentally (390)¹ that cavalry will often have to combine

¹ "By reason of its fire-arms, cavalry is capable also of *dismounted action*. It is thus in a position—and especially so when supported by horse artillery and machine-guns—to offer resistance to detachments of all arms, or to cause them serious loss by unexpected fire-action. Nor need it refrain from attack, should the situation require it. It will often have to combine dismounted with mounted action."

mounted and dismounted action, that "on occasions" also, in combination with shock action, dismounted cavalry must be ready to hold supporting points to cover deployment or to co-operate in the engagement (438).¹

I do not think that this passing mention of the importance of combination of the two methods of fighting of the cavalry sufficiently emphasises the matter. After due reflection over all the circumstances appertaining to the question, I am, on the other hand, firmly convinced that the mutual relationship between the fight on foot and on horseback will give the modern cavalry combat its peculiar character. This relationship will *always* have to be reckoned with, and all tactical considerations must be guided by it.

In my opinion all the principles of cavalry tactics should spring from this co-operation of the several methods of fighting and not from its attitude towards the various arms considered separately. The modern battle suffers no division of the action of one arm, or of one manner of fighting from another. As every kind of country has to be utilised for the fight, so also must the most varied kind of action of the arms be taken

¹ "In combination with the cavalry combat, the *fire effect of the carbine* may be employed on occasions. Thus the occupation of *points-d'appui* by portions of the advanced guard may often provide favourable and, at times, indispensable preliminaries to the deployment of a division. The support of carbine fire may be possible and useful even during contact."

into account. It must, of course, be clearly established how these can best be applied against the various adversaries—cavalry, artillery, or infantry. Such reflections, however, can refer only to tactical formations. On the other hand, as soon as it becomes a question of tactical leading, such combination of all arms must, from the first, be taken into account as war may demand.

Military history affords us vivid examples of such co-operation of the arms in a cavalry fight, not, indeed, in a European theatre of war, but in the Civil War in America. They are woven, above all, round the heroic figure of General "Jeb" Stuart, and if weapons and other circumstances of the time and place were different to those obtaining in Europe to-day, the principle of action has still remained the same.

"Soon after the outbreak of the war Stuart distinguished himself as a cavalry leader, and his strategical work in blindfolding the enemy and in enlightening his own army has never been surpassed. As a cavalry tactician he is not only the first, but hitherto the only, leader of the arm who understood how to combine the effects of fire and shock, how to render effective service in fighting on foot without losing the power to strike on horseback when opportunity offered."¹

There, indeed, was a man worthy of emulation.

¹ "The Crisis of the Confederacy," by Cecil Battine.

We must, I think, be resolute in freeing ourselves from all old-fashioned conceptions of those knightly cavalry combats which have in reality become obsolete owing to the necessities of modern war. We do not in this need to break with our ancient and honoured traditions, for the spirit of tradition consists not in the retention of antiquated forms, but in acting in that spirit which in the past led to such glorious success. But this spirit points to the road of progress and bids us not allow ourselves to be urged by events, but, hurrying before them, to gain a start in development and therewith a decisive advantage over our enemies. To maintain in the troops, under modern conditions, the spirit of discipline and independence, and of the greatest effort and self-sacrifice, *that* is the old Prussian tradition, and not the adherence to dead forms, which in our history has been bloodily enough avenged.

This principle has been embraced in all the other spheres of military development; it is only the cavalry that has remained behind the times.

In order to be able to deal with the functions of the mounted arm in accordance with the old Prussian principles, we must try to get a clear and unprejudiced conception of the spirit of the modern cavalry combat. We must look forward and pierce the veil of the future uninfluenced by the ghosts of the past. The

probable events and conditions of the modern battle must be our guiding star, and when we have realised how the spirit of cavalry may be adapted to them, how the results of modern technical improvements in arms influence and strengthen the action of the cavalry masses, then alone can we lay down principles for the conduct and tactics of cavalry in the fight.

II. ATTACK AND DEFENCE

Mobility is that prominent characteristic of the cavalry on which the justification of its existence is chiefly based. That it is able to come into action rapidly at distant points, and to observe the enemy while still afar off, makes it indispensable in the composition of an army. Anything that hinders its free mobility militates against its purpose and its characteristics. Nothing, therefore, is more justifiable or more in accordance with its spirit than that it should endeavour to preserve its mobility in the fight, and that mounted shock action, therefore, should be regarded as its proper rôle in battle. In this rôle, cavalry is able not only to force a decision quickly, but to continue its movement mounted, even from the fight itself.

These advantages, inherent in the nature of the arm, must not be expected in dismounted action. Such action always entails delay and hampers the movements of the troops, not only

by the method of operation, but also by the separation of the men from their horses. It is therefore natural that cavalry should only undertake an attack on foot when there is no prospect of obtaining their object by shock action, or when the latter would entail such sacrifice that it might imperil the further successful action of the troops.

The more, however, the disadvantageous factors of dismounted action are realised and appreciated, the more, in my opinion, will endeavours be made to give it an offensive character, in order to remove as quickly as possible obstacles which hinder the free movement of the cavalry. All delay and hesitation are in opposition to the very spirit of the arm. To preserve its peculiar element of mobility a rapid decision is imperative in every situation.

Mounted, the cavalry knows only the charge and has no defensive power, a circumstance which strengthens its action considerably in carrying out its offensive principles, by relieving the leader of the onus of choice. On foot it is a different matter. The application of the firearm, under all tactical and topographical conditions, particularly facilitates defence and enables it to appear, to a certain extent, the stronger form of action. Herein lies the reason why defensive action is continually sought. All the more, therefore, must it be kept in view that it is the *offensive*

on foot that the cavalry will require. To operate in combination with shock tactics to assist the offensive, and pave the way for free movement is, however, the real object of dismounted action.

It would perhaps have been better if the new Regulations had upheld this principle a little more definitely. In them, however, it is the defensive strength which cavalry has gained in dismounted action which is chiefly emphasised (390),¹ and the attack is only dealt with as a method of fighting from which the troops "need not shrink." Attention is certainly drawn (455)² to the various cases in which an attack upon foot may be undertaken. That, however, does not alter the fundamental utterance that the dismounted fight will chiefly be undertaken on the defensive. This interpretation is strengthened on reading in the directions for the action of the army cavalry during operations that "Especial additions to the force (cyclist detach-

¹ "By reason of its fire-arms, cavalry is capable also of *dismounted action*. It is thus in a position—and especially so when supported by horse artillery and machine-guns—to offer resistance to detachments of all arms, or to cause them serious loss by unexpected fire-action. Nor need it shrink from attacking, should the situation require it. It will often have to combine dismounted with mounted action."

² "Cavalry will often be obliged to clear the way for further activity by means of dismounted *attack*. Attempts also on the hostile lines of communication (such as the capture of railway stations or magazines, the destruction of important engineering works, or the capture of isolated posts, etc.) will certainly involve such attacks. On the battle field, however, dismounted cavalry will rarely be pushed forward."

ments, infantry in wagons, etc.) are mainly intended for the duty of strengthening local resistance, or of overcoming such resistance on the part of the enemy." The thought involuntarily occurs to the reader that in the spirit of the Regulations such additions to the force will be just as necessary in face of a serious hostile resistance, in order to free the way for the cavalry. We would, then, again find ourselves in just the same state which the war of 1870-71 proved to be so undesirable, and the cavalry would again find the wings of its mobility clipped.

The Regulations of course only intend to convey on this point that, *if* such special additions to the cavalry were forthcoming, the task mentioned would be their principal duty. It is, however, a matter of significance that it is here presupposed that infantry in wagons may be detailed to accompany the strategic army cavalry. If it were but a matter of cyclists, that would be a quite different matter. But there cannot at present be any question of this, as there is no sufficient number of them in the army.

If the Regulations discuss these kind of possibilities I fear that the demand for infantry will very soon be heard from the army cavalry when there is any question of a serious attack on foot, and herewith the free action of the cavalry will be limited once and for all.

Military history and theoretical reflection teach us equally that the great masses of the army cavalry must under all circumstances be independent, at least for their offensive undertakings—that they cannot rely, in any case for these, on the “*occasional*” support of infantry. For they would thus find their mobility hampered, and themselves tied to the very troops from which they expect support, and would then be unable to carry out those important duties which fall to their share. The army cavalry, then, can only preserve its necessary independence if it can rely upon its own strength even in an attack on foot. It must at any moment be prepared to throw all its force into the conduct of a decisive attack. This is a method of fighting from which not only should it not “shrink,” but in which its dismounted rôle essentially consists. When an attack on foot has been determined on, it must, however, be first perfectly clear that the results will justify the sacrifice which such an attack, under any circumstances, must mean—that is to say, the expenditure not only in lives, but also in time, which must both be regarded as lost in estimating the further operative value of the force.

The new Regulations take this point of view also into consideration, but in a manner that gives cause for serious reflection. They would limit the time expended in an attack on foot, and during which the arm is deprived of its free

mobility, and therefore demand (456)¹ that, if such an attack be found necessary, endeavour must be made to carry it out *with the utmost rapidity*. Here is expressed a desire easy to understand. But I do not think that the object will thus be attained of limiting the time that a dismounted fight demands. To carry an attack rapidly through under modern conditions demands the employment of overwhelming fire power and numerical superiority.

In so far as the Regulations express the idea that an attack should only be undertaken when this superiority is assured, there is great justification for the definition laid down in paragraph 456. But the cavalry must then generally confine itself to the attack of quite weak hostile posts, for even the division contains but an insignificant number of rifles. But such limitations, on the other hand, in no way take into account the necessities of grave situations. The army cavalry will often find itself in a situation where a difficult attack *must* be carried through without any overwhelming superiority, unless it means to renounce the accomplishment of the duties entrusted to it.

I do not think that we should interpret the

¹ "Cavalry must endeavour to bring dismounted attacks to a conclusion with the *utmost rapidity*, so that they may regain their mobility at the earliest possible moment. It may also be of importance to bring the encounter to a decision before the arrival of hostile reinforcements."

wording of the Regulations in this sense. Taken literally, great danger lies in them—the danger, that is, of seeing in the wording of paragraph 456 a demand for the hastening of the conduct of the attack. We should thus see ourselves prevailed upon to carry out a necessary attack in a precipitate manner without the necessary fire preparation in order to fulfil the demand for haste. In peace manœuvres such conduct is but too often seen. In war it must inevitably lead to defeat. Under modern conditions of weapons an attack does not allow of being accelerated by force. It must take its own time. We must not therefore deceive ourselves into thinking that any voluntary acceleration of the offensive fight is possible, but be quite clear that every decision to attack on foot signifies considerable loss in time as well as men.

After considering these circumstances it would almost seem advisable to alter the wording of paragraph 456, to make it somewhat more precise, and to eliminate the idea of acceleration of the attack. Every trooper must be conscious that from the moment he dismounts for fire action he is no longer a cavalryman, but a foot soldier. He must follow the laws of fighting on foot, and can only reach his horse again by successful action according to these laws. Then, certainly, the dismounted troops must strive with all means

in their power to reassume their mounted rôle with the utmost celerity.

The same holds good for the defence.

Cavalry will only undertake this when absolutely obliged. It may be that the conditions of force do not allow of the attack, or that the maintenance of some locality is the chief object of the fight. In the consciousness, however, that any hampering of initiative and free movement is opposed to the spirit of cavalry action, so must the defence—if circumstances in any way permit—be carried out with the idea of emerging as soon as possible from the defensive rôle imposed, to regain freedom of movement, and then to lay down the law to the enemy. This can only be attained by conducting the defence in an offensive spirit, that compels the opponent to a decision in accordance with our will.

This point of view does not, according to my thinking, receive sufficient attention in the new Regulations. Daring and initiative carry in them the seeds of great success. The cavalry should continually remember this, even in defence. On the other hand, however, it must also be ready when occasion demands to defend itself with the utmost obstinacy to the last man. The resolute defence of Sandepu by a Japanese cavalry brigade against heavy odds gives us a good example to follow. This action made the timely arrival of the Japanese reinforcements possible.

III. CAVALRY IN COMBAT AGAINST THE VARIOUS ARMS, MOUNTED AND DISMOUNTED

In the mounted combat against cavalry, every effort must be directed towards falling upon the enemy at full gallop in a serried mass, and thus to overthrow him. It is not sufficient to succeed in coming to blows with the enemy. His tactical formation must be destroyed, and he must be rendered incapable either of evolution or battle. And this must be done without losing cohesion or power of command. The material damage done to the enemy is a matter for the mounted pursuit, which need only be carried out by part of the troops, or, in default of this, by shrapnel.

For the conduct of the purely cavalry fight we should, in my opinion, rely upon men like Frederick the Great, Seydlitz, and the prominent Napoleonic cavalry leaders. In the relations of cavalry to cavalry, nothing has altered since their day, and the experiences of these men are, in their lessons, just as applicable to-day as at the time in which they lived. And what do they teach us ?

It is the serried formation of the attack that is, above all else, to be aimed at. Frederick the Great certainly changed his formation from the three-rank to the two-rank line. This was owing to his desire to render the troops more mobile, and in some way to compensate for the

numerical superiority of his opponent. The longer his experience of war, however, the more did the king insist upon close formation in the attack, and to the end that the attack should lead *not* to a *mêlée*, but to the breaking up of the enemy by the impact of the solid mass. Napoleon, whose cavalry was not so proficient in the saddle, sought to obtain this result by greater depth, while in the infrequent cavalry fights of the present day it has become thoroughly apparent that cohesion in the shock is the deciding factor. At Mars la Tour the French Hussar Brigade of Montaignu was overthrown by the closely formed 13th Dragoons, after having made an easy prey of the 10th Hussars, while the other attacks only led to long and indecisive *mêlées*. Frederick the Great, in order to attain the greatest possible cohesion, finally abolished all intervals between the tactical units and required the knee-to-knee riding. As, however, he was perfectly well aware that, in spite of all regulations, the ranks must open out while crossing country, he would never allow the enemy's cavalry to be attacked without a second line following the first, not in *échelon*, but directly in rear of it, a measure which repeatedly proved itself necessary, if not decisive. Napoleon's cavalry leaders held that a still greater depth was necessary owing to the looser riding of the French squadrons. As far as I know, there is

no example of their attacking in large masses without depth of formation. Peace experience teaches us, that riding across country must loosen cohesion, while the modern firearm obliges us to take refuge in broken country, where the closest touch cannot always be kept, and to this end riding stirrup to stirrup has been introduced. Is it, however, ordained that we should attack in this formation and neglect the decisive factor of the charge in favour of mobility, a proceeding which is almost always seen in charges at manœuvres?

The disadvantages of such methods are certainly not apparent in peace, as the troops do not come into real collision, and rapidity and ability to deploy receive therefore more attention than cohesion in the attack. At inspections on the drill-ground such cohesion is certainly demanded, but at manœuvres it is generally conspicuous by its absence. In war I am firmly convinced that such habits will be heavily punished.

I think, therefore, that we must return to the principles of Frederick the Great, which up to now have been neglected. In approach and deployment we must indeed ride stirrup to stirrup, and under certain circumstances in even looser formation. But for the charge against cavalry we need a closer formation, knee to knee as of old, which can be effected on the move by word of command, as in France, where the

order "*Serrez les rangs !*" is still in use. Besides this, we require always a second line in the Frederician sense, to assist, when necessary, in maintaining cohesion, and to be ready to meet the vicissitudes of the attack. This is a matter of experience which allows of no misinterpretation.

Another point comes under consideration. Commanders always seem to be particularly desirous of retaining close formation throughout the attack, and of preventing the whole of the troops becoming involved in a *mêlée* or pursuit. This originates from the necessity of having to reckon with the enemy's reserves, which may appear suddenly on the field at the decisive moment to extricate their beaten comrades. We must always be in a position to meet them, and the rapid rally from the *mêlée* is therefore to-day diligently practised, in the hope that the troops may quickly be got in hand ready to be led against a fresh foe.

It is indeed astounding that we should give way to such self-deception. Such rallies can only appear possible if we disregard all the moral forces which the fight sets loose. Whoever has had experience of a single charge in war knows what excitement possesses the men and what time and trouble are required to tactically concentrate troops that have once been launched to the attack, and render them capable of evolution. In peace this is delightfully easy after a little practice ; in war it is an absolute impossibility.

We must therefore be perfectly clear in our minds that only those troops which have not been engaged in the *mêlée*, those parts of the first and second lines which have remained formed during the charge, and the reserve which has been held in rear, will be available to meet any hostile forces which may suddenly appear.

Up to now our Regulations have followed the teachings of military history in so far as they provided for supporting squadrons behind the front line in the attack against cavalry. The new Regulations, however, not only retain the “stirrup feeling,”¹ even in the attack against cavalry, but have also greatly limited the employment of supporting squadrons, and rendered it exceptional. The Regulations practically ignore the use of the second line in the attack against cavalry. To preserve cohesion in the attack in spite of this, the men in the rear rank are to advance into the front rank in order to fill the larger gaps which may there occur (106).² This will lead under certain circumstances to a loose, almost single-line

¹ “Bügelfühling” as against “Knie an Knie” (knee to knee).—
TRANS.

² “As a rule, the squadron *attacks cavalry* as a single unit in line. The shock must be affected with the maximum momentum in two well-defined, well-closed ranks. Cohesion is above all things necessary for decisive results. Every man must realize this, must maintain his place in the ranks, and must keep close touch with his neighbour.

“The two squadron flank guides will hold the squadron in towards the centre. Small gaps in the front rank may be filled by closing in, larger gaps by moving up the rear rank files.”

attack against cavalry. These measures give ground for some concern. They can scarcely lead to any other end than to render steady riding to the charge impossible, to create disorder, and to deprive the already thin line of its force of impact.

It appears to me to be very questionable whether such directions could be carried out at all in practice. They will most certainly not attain the object which the Regulations apparently expect, that is to say, of securing cohesion in the attack, and thereby a victory for one thin attacking line. The necessity for a second line under such circumstances appears all the more obvious. The Regulations in this respect direct (200)¹ that, "if the situation demands it, even single squadrons can follow in column formation," also as an exception. This indicates a distinct divergence from the proven results of all experience, and cannot, in my opinion, be even theoretically justified.

Such dispositions cannot therefore be regarded as *justifiable*. *I consider it to be my unavoidable*

¹ "When attacking *cavalry*, the regiments will, as a rule, be employed in a line formation side by side; this will prevent their personnel from becoming mixed up. The necessary depth will be supplied by the regiments themselves, and, in this case, it is usually in the form of *échelons*. If the situation demands it, even single squadrons can follow in column formation.

"The employment of several lines may be useful on occasions when the situation demands rapid action from the leading regiment, and circumstances will not permit of the rear regiments taking ground to a flank."

able duty to express myself clearly upon this point. They in no wise alter the fact that to attack the enemy successfully our cavalry must, where its comparative strength in any way allows, be fundamentally formed in two lines, and be launched to the charge in the closest attack formation, knee to knee. For it was thus that the Prussian squadrons gained their laurels in all the splendid victories of the Frederician and Napoleonic wars.

At Mars la Tour, also, the success of the cavalry fight was decided by the 16th Dragoons, who threw themselves into the *mêlée* from the rear, acting as a second line entirely in accordance with the Frederician spirit. The 10th Hussars also attacked as a second line; and it was the cohesion of the 13th Dragoons, as we have already seen, that allowed them on two occasions rapidly to secure a victory.

If the conditions of the fight of cavalry against cavalry to-day have remained practically unaltered as compared to those of the past, it is a very different matter where the attack is against troops armed with modern firearms, essentially infantry and artillery.

In the old days, where infantry fought in serried masses, standing up, and were only able to cover a short distance to their front with a comparatively slow fire, the cavalry were able, even as against their own arm, to ride them down with shock

action in close formation. They were therefore fully justified in attacking infantry in the same formation and with the same cohesion as they attacked cavalry. This has now changed. Nowadays, when infantry can cover the ground to a distance of 1,500 or even 2,000 yards with a hot and rapid fire, and offer in their wide extension no sort of objective for shock action, an attack on unshaken, steadily firing infantry, which has any sort of adequate field of fire, is quite out of the question. Only infantry whose morale has been shaken, or which can be surprised at quite close range, can still be charged with a prospect of success. It is, then, no question of attack in cohesion, but a matter of crossing as rapidly as possible the zone swept by the enemy's fire in some formation which will allow a portion at least of the cavalry to escape its full effect.

These conditions may be fulfilled by the formation in lines. The first line must receive the fire, and will thereby provide cover to some extent to the lines behind and the possibility of reaching the enemy without suffering too severely. It will usually be no advantage to form the first line in two ranks, as such a disposition would but increase losses and the disorder caused by them. It will be better, generally, that the leading line or lines should consist of one rank at quite loose interval. This is principally on account of the ground, as the horses, in order to rapidly cover the necessary

distance, must have room to gallop freely, and to avoid such obstacles as may lie in front of them or may be caused by losses in the leading line.

It is obvious, in my opinion, that such attacks cannot be ridden home according to the same principles that govern the attack against cavalry. It is an arbitrary assumption that a line of cavalry 1,500 or 2,000 yards wide can cross country stirrup to stirrup at the regulation pace of the charge,¹ as the Regulations demand. Not only must the leading line ride at quite loose interval, but the main attack must also have a looser formation than is here demanded. It is therefore indicated that such extension should be laid down in the Regulations, a view that I have already earlier expressed.² For it can in no case be avoided, but is the outcome of the force of circumstances. In the formation in lines, however, there is always room to open out, and troops or squadrons may be used in single rank.

The same principles that govern the attack against infantry hold good for that against artillery. Here also it is a matter of crossing the zone of fire at a rapid pace in widely extended order, or drawing the fire of the artillery by the advance of the leading line, and of compelling

¹ The German cavalry use two paces at the gallop, 500 and 700 paces per minute, the pace being 80 cm. (32 in.), thus $14\frac{1}{2}$ and $20\frac{1}{2}$ miles per hour.—TRANS.

² "Gedanken zur Neugestaltung des Kav. Reglts."

it to repeatedly alter its elevation. To this end it may perhaps at first be advisable to expose only weak portions of the charging first line to the fire of the guns, in order to disturb it, and to pave the way for the success of the main attack. This will have to ride in line, or perhaps better still in squadron column, in order to make full use of the unexposed portions of the ground. Thus in this case, also, the leading lines in single rank extended and loose riding in the changing formations of the main attacking line are advocated.

The new Regulations arrive partially at the conclusions inevitable from these reflections. The attack in several lines, and the formation of a first line in single rank for the attack against fire action have been adopted by them (113 and 174).¹ In one point only, according to

¹ "A squadron must seek success against *infantry, artillery, and machine-guns* by means of surprise and flank attacks. If a frontal attack is necessary, the zone of fire is best passed by increasing the pace. The gallop will be resorted to early in the advance, and the pace increased in the vicinity of the enemy. Breathing spaces can be obtained under cover of the *terrain*. As, in these cases, momentum of impact is not so important, it will be sufficient if collision takes place at a rapid gallop.

"In order to minimize loss, it is advisable to let the advanced portions of the squadron, or even the whole, adopt single rank formation with wide intervals. By this means the hostile fire may be broken up, and, on occasions, the dust raised by the troops in open order may facilitate the attack of the portion of the squadron remaining in close order.

"If it is a question of simultaneous attacks, either on a single enemy from several directions, or on several distinct units of the hostile force, action by single troops may be advisable.

"Hostile skirmishing lines will be ridden through, if there are other detachments behind them to be attacked. Any form of attack may

my view, they do not take sufficient account of the demands of reality, and this is in the matter of extension. As before, the attack in close formation against infantry which the Regulations advocate, will be carried out and practised according to the same principles as against cavalry. As before, infantry firing lying extended under cover, as also artillery, are to be charged in the same method as cavalry advancing in close formation.

I think we have proved that the attendant conditions of the two cases differ widely. If the Regulations had but taken them into consideration, the difference between the two methods of attack would have thereby been made more in-

be employed against shaken, yielding infantry. Skirmishing lines are best pursued in open order, which formation permits of the most effective employment of cavalry weapons.

"If, during an attack, a squadron breaks into a battery or machine-gun detachment, a portion of the men will be employed against the personnel, a portion against the limbers. Captured guns or machine-guns should be carried off; but, if this is impossible, they will be made unserviceable, or, at any rate, incapable of movement. Led horses should also be made the objective in attacks on dismounted cavalry.

"The principles laid down for action against cavalry can be applied, *mutatis mutandis*, in the matters of pursuit, *mêlée*, and rally."

"Such attacks are carried out in accordance with the principles of para. 113.

"The strength of a regiment renders it impossible to attack the objective in several lines. The officer commanding will give orders as to whether the front line is to be in single rank, and as to whether the rear lines are to be in a similar formation or in closed double rank.

"In attacking infantry, the lines must not be at too great a distance from one another. In attacking artillery, the distance between lines is determined by the effective area of the burst of shrapnel (300 metres = 330 yds.)."

telligible to all officers from the first than could be done by general instructions of this nature.

The cavalry has now a demand made upon it by Regulation which, although it can be met on the drill-ground, will be impossible of fulfilment in war. It will therefore be necessary to discard in war what we have taken such pains to learn, a thing which frequently happens in manœuvres, and even on the exercise-ground.

In the formation for attack and the deployment, the Regulations follow the logical sequence of their point of view that, in the attack upon cavalry, no second line is necessary, and in this matter adhere to the directions laid down in the old Regulations. From my point of view, this does not seem to correspond at all with the necessities of the fight.

In my "Reflections on the New Cavalry Drill Regulations" I laid down "that it should always be possible for cavalry to change from the manœuvre column straightway into attack formation with flank protection, without first forming line, as hitherto has been deemed necessary." In opposition to the Regulations I still hold fast to this principle.

We have seen that the formation in lines is the necessary one for *all* charges, and that an attack in *one* line will only be possible in exceptional cases where weakness forbids the formation of several lines, or where the surprised and

demoralised condition of the enemy appears to render a second line superfluous.

The logical conclusions resulting from these reflections are that all column formations employed in the approach march must keep in view first and foremost the rapid adoption of the attack formation, and that deployment must in principle lead to the formation in lines for attack. The complete deployment in line of any units from the regiment upwards can only be necessary in exceptional cases. It can be formed from the attack formation or direct from column when specially ordered.

Taking into consideration the rapidity with which approach, deployment, and attack will often follow each other, I would even advocate that a trumpet-call, "*Form for attack!*" should be laid down in the Regulations. The strength of the various lines will generally have to be ordered according as the objective consists of cavalry or troops using fire action. It will not always be possible to find time for detailed arrangements, particularly during the rapid vicissitudes of a cavalry combat. The trumpet-call would then justify itself, and the lines would be formed by the independent action of squadron leaders, according to the formation the troops were in and the expected breadth of frontage of the enemy. It should be laid down as a guide that of four squadrons one at least should form a second line, and that an un-

protected flank should, when possible, be covered by a squadron in *échelon*. The squadrons nearest the enemy would form a first line, and the remainder would act according to circumstances, and either follow the first line, *échelon* themselves in rear of it, or, when necessary, prolong it. For the deployment into one line a special call could be used.

For the conduct of the fight on foot the same principles hold good as for the infantry. The duties and conditions of the fight are similar, and demand similar general tactical directions. The arrangements for the led horses, however, render the introduction and the conduct of the fight considerably more difficult. There is also a certain difference according as the opponent is infantry or cavalry.

For, in the first case, there is generally no danger of a further turning movement, or of threats against the led horses from the flank or rear. In the greater number of cases when arranging for the position and safety of the led horses, only small hostile patrols need be expected. An action may therefore generally be conducted with more boldness under these circumstances than when opposed to cavalry which might seriously threaten the led horses by a mounted reserve.

These circumstances must be taken into consideration when dealing with the principles for the conduct of the led horses.

In defence, the measures required are comparatively simple. The conformation of the ground usually chosen with a view to the peculiarities of defensive action will often allow of the led horses being kept close to the firing-line, where it will also be possible to mount out of the enemy's range and to withdraw from his fire under cover of the ground. The led horses should only be left to the rear if the position is to be maintained until the enemy comes to close quarters; and then should be, if possible, behind some fresh position, where it seems likely that resistance may be renewed. In defence, the led horses will generally be left quite immobile,¹ though this method should not be considered imperative. For even in defence the led horses must be sometimes kept mobile; for instance, when it is necessary to rapidly occupy on foot some locality in the neighbourhood of which there is no suitable position for the led horses. In such a case they will have to be sent behind cover, which can only be done if they are mobile. The horses will only be kept in the immediate neighbourhood when it is intended merely to bring off a fire surprise, and not when carrying out an attack or making an obstinate resistance (471-473).²

¹ *i.e.* with insufficient men to lead them.—TRANS.

² "Cavalry may succeed in causing hostile detachments considerable loss, and in upsetting their dispositions, by a surprise appearance combined with an unexpected and simultaneous opening of fire. By means of skilful use of ground and by reason of their

For the attack the conditions are different. The troops must then be often completely separated from their horses. It is therefore all the more necessary that the latter should be secured against all hostile attack. If, for instance, hostile cavalry threatens, they must have a special escort. The possibility of a reverse must be taken into consideration when selecting the position for led horses, and the retiring troops must be able not only to mount, but to withdraw under cover.

It is of especial importance that the troops should regain their mobility after an attack has been carried out. When the led horses can be moved, this is an easy matter. Where, however, they are immobile, as will generally be the case where full force has to be put into the fight, there will be considerable loss of time unless it be possible for the led horses to be brought up, part at a time, by any mounted reserve that may have been left in the rear. In spite of this disadvantage, the desire to render the led horses mobile should not be allowed to lead to the undertaking of a dismounted action with insufficient numbers.

mobility, they can rapidly disappear and escape hostile fire action, as soon as they have obtained the desired results."

"As many carbines as possible must open fire simultaneously. The leader must do his best to select such ground for the surprise as will permit of the horses being kept under cover close at hand."

"Horse artillery and machine-guns are necessary to produce the full effect of fire. Occasionally the co-operation of the cavalry may be limited to protecting the artillery while taking up a position, whence it can suddenly open a rapid fire on the enemy."

This desire to regain the horses as rapidly as possible is frequently to be observed at manœuvres, and not only leads to dismounting and leaving the led horses mobile, but is sometimes allowed to exercise too much influence on the question of where the horses are to be left. In war this consideration should never influence the conduct of the fight, nor lead to the undertaking of a dismounted fight in a half-hearted manner, or precipitately, and thus paralysing the energy of the attack. It should never induce a commander to keep his horses too close to the battlefield and thereby exposed to danger, in order that he may more quickly regain them. If dismounted action has been determined on, the main condition is that the attack should be successfully carried out, and all other matters must be subordinated to this end.

The precepts of the new Regulations do not, to be sure, harmonise with this view. According to them, even when led horses are not required to be mobile, only three-quarters of the men dismount, and each man will hold four horses (366).¹ The number of rifles will be greatly

¹ "At the command: '*Dismount for dismounted action!*' the squadron dismounts. If the carbines are not already slung across the back, they will be taken from the buckets.

"When double rank has been formed, the horse holders will take charge of the horses. The horse holder of either rank is the left flank file of each section (excepting the left flank guide). If there is only one man in the rear rank of the left flank section of the troop, he will hand over his horse to his front rank horse holder; or, if the latter is already in charge of four horses, to his neighbour. The

diminished by these measures (by about a quarter); and it is not quite clear, at least to me, what corresponding advantage is to be gained. The measure is, however, so far-reaching that it merits special criticism—the more so as the Regulations themselves lay stress upon the rapid energetic conduct of the fight, and at the same time make such action more difficult by weakening the numbers in the firing-line.

Will the horses thus retain a certain degree of mobility? This would be a mischievous delusion. Even if such measures allow of short distances being covered at a walk on the level drill-ground, such a thing is out of question in the field and in the proximity of a fight. How will one man lead four horses, and at the same time carry four lances? A practical impossibility.

The Regulations also give no clear directions as to how the lances are to be carried during these evolutions. On the other hand, the number of men formerly detailed fully sufficed for holding the horses when it was not required to move them. There seems therefore to be some other reason for this measure.

horses in charge of a horse holder will be linked. Officers' horses are held by trumpeters.

"Lances are laid on the ground—if in line, in the front of the ranks; if in column, on the flanks—in such a manner that they cannot be damaged by the horses.

"In the absence of a contrary order, the serjeant-major and the left flank guides will remain with the led horses, in addition to the horse holders."

I have asked myself the question as to whether the fact that more men are to be left with the horses than formerly will perhaps make it possible to defend the led horses by dismounted patrols. The directions contained in the Regulations (368)¹ that hostile patrols must be kept at a distance by single sentries posted by the commander of the led horses indicates that such was perhaps the intention. But it appears to me that even *this* object cannot be attained in such a way. The sentries, if they are to defend the led horses from long-range fire in open country, must be pushed forward in considerable numbers, and very far, almost at rifle range. With single sentries close at hand, no proper protection is afforded, nor can posts be sent out 1,000 yards without giving them a strength which the force cannot afford. If, however, the protection of the led horses in difficult country is to be provided for, a few sentries will most assuredly not suffice to prevent hostile patrols approaching unobserved.

In order to properly protect the led horses they must either be so disposed that they are actually covered from the view and fire of the enemy,

¹ "The led horses will remain in the original troop formation. Their leader must keep himself informed of the course of the encounter, he must remember to keep off hostile patrols by means of single sentries, and he must facilitate the rapid remounting of the dismounted men by placing the horses in orderly formation, with the troops and ranks separated."

or else secured by an escort strong enough to prevent hostile action against them. *Tertium non datur.*

Taking these things into consideration I cannot regard the limitation of the number of rifles in the firing-line imposed by the Regulations as justifiable. It seems to me that here a sacrifice is made with no corresponding advantage resulting.

This anxiety seems also to have influenced, to a certain degree, the text of the Regulations. In paragraph 367¹ the attempt is made to compensate in some measure for the danger created by the weakening of the firing-line. That is to say, the squadron leader is allowed in either method of dismounting (with half or three-quarters of the men) to reinforce the firing-line, if the situation demands, by diminishing the number of horse-holders. But it seems to me that this arrangement is not quite practicable, and does not sufficiently take into account the difficulties that will continually result therefrom in the conduct of a real fight.

First of all, it must be regarded as extremely hazardous to leave such measures altogether in the hands of squadron leaders. Only consider, for example, the case of a brigade commander

¹ "If, with due regard to the tactical situation, it can be done without risk, the squadron leader is at liberty, when employing *either method of dismounting*, to increase the number of his dismounted men by decreasing the number of his horse-holders."

who dismounts half his men in order to keep his led horses mobile, and during the attack makes the discovery that the horses cannot follow because the squadron leaders have reinforced the firing-line from the horse-holders! Throughout the Regulations there are no sort of directions for limiting the initiative of the squadron leader in such matters in the case of the larger bodies of troops.

But if this is to be disregarded, what becomes of the whole measure? Is it to be determined when dismounting that the number of horse-holders is to be diminished, or are these men only to be brought up in the course of the fight? Against the first method there is naturally nothing to urge. But the second, also, is quite allowable according to the letter of the Regulations. It will, however, result in grave disadvantages.

If in defence the led horses are close to the firing-line, such procedure is certainly possible, but only, it seems to me, in this one case. If fighting a defensive action where the horses must be left far to the rear, or indeed in an attack, how and when are these reinforcements to be brought up? It is generally in the middle of a fight that the discovery is made that the troops are insufficient. How is the order then to be sent to the squadron leader that the few men who can still be spared from the led horses are now to advance? How will these men be led

to the front, perhaps 1,000 or 1,500 yards, or still farther? How long will the squadron wait for their arrival? And in the end will it not only be a matter of comparatively few men for each squadron which will dribble gradually into the fight? These cannot be regarded as reserves, but, at best, weak supports far in rear, which can only be employed in the fight with difficulty and loss of time, if at all.

I think, therefore, that what the Regulations prescribe in this matter is not suitable for real war, and that it would be better from the commencement to employ all the men that are considered necessary, and rather to dismount, as before, and leave the led horses quite immobile, than afterwards to allow single men to dribble into the fight. As *reserves*, formed detachments must be directed against the decisive points, and not a few troops brought up to reinforce the whole length of the line at the discretion of the squadron leader.

IV. THE FIGHT OF THE INDEPENDENT CAVALRY

Such fights will occur during the offensive reconnoissance of the cavalry, in screening, and in enterprises against the enemy's communications and lines of approach. Cavalry may also be entrusted with the task of dispersing gatherings of hostile partisans, of levying contributions on

a large scale in the enemy's country, and of carrying out other similar undertakings. Serious encounters must often be expected under such circumstances.

It is naturally impossible to give tactical guides and directions for all these various cases; each problem, rather, will demand its own solution. At the same time certain typical phenomena continually repeat themselves in all such combats, for which general principles and rules for guidance may be profitably set forth.

The fight will be either offensive or defensive. In the offensive it will either be a matter, if the enemy is also pressing forward, of the battle of encounter, or else the attack against localities or positions. In fighting against partisans, also, it will more frequently be a case, as it was in France, of a struggle for localities. In the defence, on the other hand, localities, positions, or defiles will have to be defended. Beyond these groups no real fight can be considered with the exception of surprises, which merit separate consideration.

It is therefore, in my opinion, advisable to develop the tactical principles according to some corresponding grouping of the material. Only thus can clear and reasoned conclusions be arrived at. For if we take all the various principles evolved from different tactical situations and jumble them illogically together, or discuss them from points of view which are not closely

based on the probable happenings of reality, we run a danger of confusing the judgment instead of clearing it.

1. *The Battle of Encounter*

When lesser bodies of cavalry, unaccompanied by the other arms, meet during a mutual advance, it is essentially a matter of endeavouring to deploy more quickly than the adversary, of surprising him if possible while still deploying, and of seizing the advantages of the terrain. It is by good screening of the approach, superior reconnaissance, a quick eye for the possibilities of the ground, and rapid decision that here, as before, superiority can be maintained.

It may happen in exceptional cases, under modern conditions, that the larger bodies of cavalry, accompanied by a proportion of other arms, are unable at the moment of collision to employ them—*e.g.* in close country. There may then be a purely cavalry fight on a large scale, and action must of course be taken according to the tactical principles involved. I have laid down these principles in detail in my book “Cavalry in Future Wars,” and it is not necessary to repeat them here. Early deployment, maintenance of exterior lines, rapid decision, are, as regards the leading, the important factors of success.

It is quite another matter where co-operation of the other arms can be seriously counted on.

It is then chiefly the artillery which will set its stamp upon the development of the fight, and it will no longer be possible to act according to purely cavalry tactical principles. A brigade or division, in column of route, or even in several formed columns, if exposed to the enemy's artillery fire, will suffer such material and moral loss that such formations, unless compelled by circumstances, are particularly to be avoided. Whoever is obliged to effect the deployment of his force under the enemy's guns casts from him one of the most important elements of success.

It will therefore be necessary, when advancing against the enemy, to adopt the approach formation, and to seek cover as soon as it is calculated that the hostile artillery are within effective range. In order rightly to calculate this moment the enemy's probable advance must of course be taken into consideration, and, as this may vary greatly according to the pace adopted, it is advisable in this respect not to be too optimistic, but to be deployed rather too early than too late.

Taking into consideration the range of modern artillery, the deployment should commence, therefore, in open country, at latest when some 6,500 yards from the enemy.¹ As this distance

¹ If I lay down that the deployment in the case of infantry columns marching towards each other should begin at 8,500 yards, and in the cavalry only at 6,500 yards, the reason is that the mounted arm effects the necessary deployment much more quickly. The depth of the column, also, is not such a decisive factor as in the case of infantry.

will diminish very quickly when the opponents are both rapidly advancing, it will certainly be advisable, if the knowledge of the situation in any way allows, to take up the required breadth of front still earlier.

I would here lay down that a too rapid advance of our own troops, unless rendered necessary by the situation, is in no way advantageous. It is not generally a question of striking the enemy as far to the front as possible, but of striking surely, and of having sufficient strength in hand to annihilate him in the pursuit.

A steady and well-thought-out advance should therefore be undertaken; for a precipitate forward movement distresses the horses quite unnecessarily, renders an appreciation of the situation more difficult, and generally allows of no well-considered action. There is also another reason for avoiding a too rapid advance. This is the fact that in such a case the most important reports generally come in when the force is already in the immediate proximity of the enemy. This disadvantage increases with the rapidity of the advance, as a rapidly moving force will follow more closely on the heels of its reconnoitring patrols. To ride slowly forward and to give the patrols time to send back reports will generally lead to better information as to the situation, and will allow of a better and quicker decision being made. The enormous advantage may then be

gained of being deployed earlier than the enemy, and of gaining exterior lines from the beginning.

In spite of this, most cavalry leaders, especially at manœuvres, regard their task as a matter of rapidly covering a certain distance, and see in this the essence of the cavalry spirit. This is, however, by no means so. Coolness, reflection, economy of force in approach and deployment, but that lightning-like decision and action at the proper moment, which can only result from a clear appreciation of the situation, alone make the great cavalry leader. It is just because such opposite qualities must be united in the soul of *one* man that such leaders are so rare and so difficult to recognise in time of peace.

When a collision with the enemy is in any way in prospect, the commander must in principle remain, during the advance, with the foremost detachments of the advanced guard, in order that reports may reach him as early as possible. When in close proximity to the enemy he will often be obliged to advance with a sufficient escort from point to point, in order that he may be able to study the ground from good points of view, and, where possible, himself observe the movements and dispositions of the enemy. He will thus be in a position to make his preliminary arrangements rapidly and effectively, to spare his troops unnecessary marching, and to counteract any unsuitable dispositions made by his sub-

ordinates. He must not, however, conceal from himself that even the most effective measures of reconnaissance may fail, and that he may be faced by the necessity of coming to a decision without full knowledge as to the enemy.

In such cases, when it can be estimated that deploying distance from the enemy has been arrived at, further reconnaissance should not be waited for to assist decision; but the initiative must, under all circumstances, be maintained. The leader, then, must act according to his own judgment, and impose the law upon his opponent, and yet be ready, by careful dispositions, to meet unforeseen events.

It may happen that the opponent is unexpectedly met with, and has gained an advantage in deployment. In such a case a forward deployment generally leads to the dribbling up of the force, hampered, as it will be, by the proximity of the enemy. The deployment should therefore be made either on the existing line of front or to the rear, according to the distance from the enemy, and should be covered, where necessary, by the dismounted action of the advanced guard and by artillery fire. Only thus can the lost freedom of action be regained, as superior breadth of deployment is the first and perhaps the most important step towards the maintenance of the initiative.

We must not, however, assume that this de-

ployment—in a cavalry division, for instance—requires that the various brigades shall draw away from each other at regulation intervals, and that the division will, in this formation, advance towards the enemy. This will generally be impossible; first, because it is usually advisable to seek the cover of the ground in order to be secure from possible hostile fire surprise, even when the enemy's artillery is not yet located; secondly, because the regulation frontage of deployment of a cavalry division is much too narrow to allow it to gain exterior lines, or to affect a concentric attack. The deployment must rather be carried out according to the demands of the situation at the moment, without regard to regulation intervals. The division commander will first of all detail a reserve for himself. To this he will then give the orders necessary for its conduct as well as to the advanced guard, the various groups of the main body, and the artillery and machine-guns. The direction of march of the various subdivisions will thus be determined according to the ground and the intentions of the commander, and it will also usually be necessary, in order to keep the troops well in hand, to order the advance by stages, and to regulate the pace.

If the advance has been carried out in separate columns, the action of the smaller columns must be regulated before the deployment of the main column. A certain loss of time will here generally

be found inevitable. The necessary preparations must therefore be made early enough to ensure that, if the juncture of a detachment with the main body is intended, it will be possible to carry it out before contact with the enemy is made. It is a matter for especially careful and well-considered action if one of the lesser columns is to intervene from a flank direction in a fight which is already raging, an operation which may be of the most decisive importance, but difficult to effect in the rapid course of a cavalry action. If, however, it is desired to reap the benefits of such action, an endeavour must be made to gain time by dismounted action for the arrival of the column which is to strike the decisive blow. Such measures will always be risky, but may lead to glorious results.

The orders for the concentration and for the deployment form the framework on which the whole fight develops. They are therefore of the highest importance. Faults committed here can seldom be rectified later, and yet such orders will generally have to be issued before touch with the enemy is gained, except by patrols, and at a moment when the main features at most of the enemy's situation are known. Particular attention must, as we have seen, be paid to his artillery. No one will deny that herein lies the possibility of misapprehension and failure, and that many a leader will shrink from the necessity of such a

decision. He, however, who, in spite of the uncertainty of the situation, succeeds in making up his mind betimes has an obvious advantage. For it is just in such a battle of encounter that success will fall to him who knows how to avail himself with rapidity and determination of the favourable moment, who quickly possesses himself of important points and localities, and who anticipates the enemy, as advocated above, in broadening the front, and thereby in deployment.

Under such circumstances the dispositions made for the advanced guard will be of the greatest importance. Its conduct has often a deciding influence on the issue of the whole fight.

If it be carelessly handled, this circumstance may mean the loss of the initiative, and the commander may find himself compelled to turn his attention to the situation forced upon him by the advanced guard, and to conduct the fight otherwise than his own intentions and the general situation demand. On the other hand, a too careful employment of the advanced detachments is apt to entail loss of advantages which might be of decisive importance. The proper conduct of such an advanced guard demands, therefore, an unusually sure military instinct. Its commander must always be instructed in a detailed manner as to the intentions of the general, if he is expected to handle his detachment successfully according to them.

It will often be advisable for the advanced guard to occupy some point of support dismounted, in order that the deployment and the further tactical development may be undertaken under cover of it. In such circumstances there is no reason to shrink, when necessary, from bringing the advanced guard back to some suitable locality, if thereby full cover can be afforded for the rear detachments or for separated portions of the force that may be rejoining. It will often be found desirable also, in the critical moments of deployment, to strengthen the resisting power of the advanced guard by machine-guns. It may, however, on the other hand, be equally advantageous for the advanced detachments, on collision with the enemy, to charge him recklessly in order to reap full benefit from some favourable opportunity.

The handling of the artillery, particularly at the moment of deployment, is of especial importance. It may be a great advantage to bring it into action before the enemy's artillery, in order to profit by any carelessness of the hostile troops in deployment and approach, and to surprise their artillery when coming into position. The conduct of the advanced guard must therefore be influenced by the fact that a suitable position must be assured to the artillery. Its fire will often suffice to induce the enemy to show his strength or to evacuate localities which he has occupied.

As long as the strength of the enemy is unknown and the possibilities of superior force have to be reckoned with, it would be a great error to stake the whole force as soon as contact has been gained. This is often done on training-grounds in quite a systematic way, because there is always a tacit understanding that the enemy is no stronger than one's own force. In war such action might lead to the gravest disasters.

If, therefore, complete uncertainty reigns as to the enemy's strength, it will be better at first to operate tentatively with a portion of the force until an opinion can be arrived at as to whether the decisive attack can be ventured on. Energetic contact with the enemy by fire action will generally soon clear up this point.

The view that a gradual and judicious employment of force is not in accordance with the principles of cavalry action (430)¹ can only be justified in the case of the pure cavalry combat mounted. This, however, in my opinion, should only be determined upon if the enemy's strength is known, at all events to some degree. I do

¹ "An attack in which troops are sent gradually into action in small detachments, one after the other, is not in accordance with the spirit of cavalry combat. A force large enough for the attainment of the objective must, therefore, be employed from the very commencement of the engagement. But not a man more! No squadron must be allowed to deal a blow in the air. Conversely, it is wrong to commence an engagement with insufficient force, and thus to leave the enemy with initial success."

not share the view of the Regulations that, if uncertainty reigns as to the strength and intentions of the enemy, freedom of action can be preserved, even in the mounted combat against cavalry, by the use of formations in *échelon* (424).¹ This is only possible by a protracted action in which gradual reinforcements are used, and only in such a manner can the enemy be forced to disclose his strength and intentions. A protracted fight, however, can only be carried out by fire action. A mounted advance, whether made in *échelon* or otherwise, cannot alter the rapid nature of a cavalry fight, and will not allow of sufficient time being gained to form a proper appreciation of the enemy. *Échelon* formations lead at best to eccentric attacks and thereby to unfavourable tactical situations.

If the situation is to be cleared up by fighting, fire action must be employed, and as soon as this occurs, whether on the part of the enemy or oneself, a gradual employment of force is not only no disadvantage, but is demanded by the circumstances. For at first the fight must be carried out from depth; the Napoleonic "*Je m'engage et puis je vois*" holds good; one's own main force will only be engaged when the strength and intentions of the enemy become in some

¹ "Collisions of cavalry partake usually of the nature of battles of encounter. In such cases, uncertainty as to the strength and intentions of the enemy render necessary such *échelon* formations as will preserve freedom of action."

measure known. It will, however, be advisable in all cases to keep a strong reserve in hand until prepared to advance to a well-considered and planned attack.

The passage of defiles, also, is scarcely likely to be undertaken in serious war in the manner so often seen at manœuvres. Here the chief matter for consideration is generally to keep one side as far from the defile as possible, in order that the passage of the other may be possible. Such tender solicitude is scarcely to be expected of a real enemy, and it will, I opine, scarcely occur to anybody in war to attempt a defile without preparation, and to advance on the farther side against an enemy whose strength, as is generally the case in war, is unknown, thereby running the danger of being thrown back on the defile and of suffering enormous loss. Such a danger, to which the whole force is exposed, would certainly only be incurred when the gravest necessity compelled. What the Regulations say in this respect (434)¹ has, to my mind, but a limited practical significance.

Such directions would only be followed if the

¹ "If, on emerging from a defile, the enemy is not so close as to necessitate an immediate attack with any available forces, a *deployment at the halt* offers certain advantages. It saves space towards the front, and gains time—a matter of some moment in a critical situation. On the other hand, it must be remembered that an immediate deployment and advance inspires the troops with enthusiasm. A deployment at the halt may also take place when the intention is to make a surprise attack from a concealed position."

enemy were known to be still far distant and approaching, where there is time and space sufficient, and where the force is considered to be at least a match for the enemy. Even then, preparations should be made for a possible retirement. In all other cases, however, a defile on the far side of which the enemy is supposed to be will only be crossed when the ground for deployment on the far side is at least commanded with fire in such a way that the enemy will not be able, in case a retirement becomes necessary, to pursue right into the defile.

It will therefore generally be advisable to throw forward a few squadrons at a rapid pace across the defile in order to occupy with dismounted action *points d'appui* on the far side, from which the foreground can be covered. This will secure the passage of the main body and arrest any possible pursuit. It will often be advantageous to provide such squadrons with machine-guns. Artillery can most suitably come into action on the near side of the defile, so that it may be able to cover the country on the far side with its fire.

Even if a defile occupied by the enemy has been captured by fire action it is advisable, before the main body crosses it, to secure a few *points d'appui* in the foreground, in order to secure the passage against counter-attack by the enemy's reserve.

Such necessary care in the preliminaries of an action, however, must in nowise lead commanders to allow themselves to be forced to adopt a defensive attitude or to abstain from decisive attack. That is not the intention. Such measures are only taken to clear up the situation, which cannot generally be done in war without fighting, and to diminish the risks of any further action which may ensue. If the enemy has so far shown himself that an appreciation can to some extent be arrived at as to his strength, if he has brought artillery into position, if perhaps he has attacked our advanced guard, or by the action of the latter has been forced to throw more men into the fight, if, in short, it can be determined that an attack has prospect of success, then the decisive offensive must be undertaken with all the force hitherto kept back. Detachments, also, which have been dismounted can then, according to circumstances, be withdrawn from the fire fight and otherwise used. The attack, especially when mounted, will usually be delivered with greatest advantage from the flank, and must, as a rule, reach well out in order to escape as far as possible the artillery and machine-gun fire of the enemy. Whether it be undertaken mounted or dismounted will depend upon the attitude of the enemy and the attendant circumstances. In either case it will be advisable to husband a reserve as long as possible to meet

the vicissitudes of the fight, or to be used for a bold stroke, when it is seen where a decision may be arrived at.

If dismounted action must be undertaken, the principles which govern the infantry attack hold good. The fire of the artillery and, where possible, the machine-guns must naturally be utilised for the support of the attacking troops. The dispositions for the action should, however, never depend upon the possibility of finding a good artillery position. The artillery must suit itself to the circumstances, and come into action wherever it can best co-operate in carrying out the commander's intentions. It can often be profitably employed in the protection of an exposed flank. It will be of advantage to shelter it behind some obstacle in order to save the necessity of finding a detachment for its security. Machine-guns may sometimes be advantageously used for the protection of the artillery. It is at the same time advisable that a specially detailed cavalry escort should be dismounted for this object.

A concentration of the batteries facilitates fire command and measures for protection. A dispersion by groups allows a better effect against the hostile artillery and usually affords a more extensive field of fire. Machine-guns, which must generally look for positions as far to the front as possible, or, if they are protected, to a

flank, will usually be best concentrated in a single fire position. They may, however, be disposed by sections when occasion demands. This principle holds good also for the artillery. Hard-and-fast rules must be avoided if the many and varied demands of a cavalry fight are to be met. The line of fire, however, of artillery and machine-guns should never be allowed to limit the movements of our own cavalry.

In consequence of the peculiar nature of the cavalry fight it will often be desirable to keep the limbers with the guns. It may also be an advantage not to bring the first-line transport and a portion of the wagons on to the field itself. For similar reasons the light ammunition columns will at the commencement probably march with the baggage. Thus too it will often be necessary for the machine-gun detachments to keep their teams near the guns, or to shoot from the carriage and to leave the ammunition wagons in a safe place. All these measures contain, however, the danger that ammunition may not be at hand when wanted, or that these indispensable supplies may fall into the hands of hostile raiding parties. The failure of ammunition may, especially in the case of a protracted dismounted action, be of decisive importance. Such will be especially the case where the ground favours the use of the

rifle, or where the hostile cavalry is strengthened by cyclists or mounted infantry and shows an eagerness (natural under such circumstances) to take advantage of such methods of fighting.

The cavalry leader will, under these conditions, only undertake what must be an obstinate combat when he cannot in any way avoid it, or at least is not compelled to attack frontally. He will rather endeavour, if the general situation allows, to separate the hostile cavalry from the less mobile infantry by repeated turning movements and then to attack it when isolated. If the hostile cavalry and horse artillery can be driven from the field, the infantry detachments will form an easy prey for the artillery or can be surrounded. Under such circumstances, always with due regard to the general situation, the road on which the advance is being made may for a time be abandoned and the turning movement carried out with the whole force, if such a proceeding affords a favourable prospect of tactical success. Such a movement threatens the enemy's communications in the same way as it exposes our own. Victory, however, will secure the latter again, and will be the more decisive the farther the enemy can be driven from his natural line of retreat.

Should the cavalry meet a superior force of all arms, such as might be pushed forward by the enemy's army, to support the offensive of

his own cavalry or to serve as a pivot of manœuvre for them, a decisive battle must on no account be undertaken with it.

When the Regulations (519)¹ demand that endeavours must be made to force back such detachments or to break through them, I think that the tactical value of the arm is over-estimated. I cannot conceive any real case in which cavalry can break through hostile detachments of all arms. In my opinion the cavalry will generally have to be content to make such detachments deploy, by means of artillery fire, and especially by fire action from a flank, and thereby to lose time, to deflect them from their line of march, and, by threatening their rear and communications, prevent them from carrying out their intentions. Bold measures are in such cases the best, and will preserve to the cavalry the possibility of continuing the distant reconnaissance in rear of the hostile detachment.

As to the leading, in all such battles of encounter the commander's place, as has already been indicated, is at the head of the advanced guard. As soon, however, as contact has been

¹ "During *operations*, the army cavalry must seek to gain the earliest possible insight into the situation and dispositions of the enemy. It must endeavour, not only to drive the hostile cavalry from the field, but also to press back advanced detachments of all arms, or to break through and push forward to the vicinity of the main body. Cavalry screen duties, also, may provide fighting for the army cavalry."

gained he must, on the contrary, remain far enough behind the fighting-line to be able to watch his own troops and the enemy, and to be easily found. He should not be wandering about the battlefield, seeing everything and arranging everything himself. Only where it appears necessary to him to make a moral impression should he place himself at the head of an attacking force. He might, especially, lead his last reserve into battle, and by his personal example endeavour to inspire the troops to an impetuous attack. Such cases, however, will be very exceptional. It will always be most important that the supreme commander retains control over the whole of his troops, and can receive messages and at decisive moments issue orders and instructions to the force.

In the greater number of cases the commander will personally neither reconnoitre the ground whither he is sending a detachment nor yet the enemy which it shall engage. He will scarcely ever be able to give to single small units or even to the directing brigade, if indeed he has detailed one, the direction of attack. It will often be impossible for changes in orders to reach troops once set in motion in time to be of use, especially in a purely cavalry fight.

When the Regulations, in spite of this, declare it to be indispensable that the leader *himself* must be able to see if he takes the offensive

against cavalry (403),¹ this is, under modern conditions and large formations, in most cases quite impracticable, even in manœuvres. As a rule the commander will only be able to indicate *the task*, and it must be left to the subordinate leaders to carry it out to the best of their ability, according to the situation as they find it on the spot. The situation during the rapidly changing phases of the cavalry fight will often be quite different from what was expected when the tasks were allotted.

On the other hand, before the commencement of the engagement, all subordinate leaders must be informed as to the situation and the general idea of the fight, also as to what duties each one of the larger formations is to carry out; so that all may be in a position to act according to the views and intentions of the commander if circumstances should be found different from what was expected. It will in most cases be desirable to issue the order for deployment in such a way that at least every brigade commander is informed of the general situation, and then to give supplementary orders for the fight which will be issued

¹ "The leader must select a station from which, while keeping his own troops well in hand, he can obtain a good view of the surrounding country, of the enemy, and of the progress of the battle. He will either observe himself, or by means of officers sent out to observing stations. These latter must maintain constant communication with him.

"*Personal observation is always the best, and is essential in the case of offensive action against cavalry.*"

to all units. Whether in a battle of encounter it will be always possible to detail a directing brigade I very much doubt. One brigade will often fight on foot, the other mounted, while the change from the advanced-guard rôle to deployment for battle will generally render a handling of the division according to rule practically impossible. The idea that, with an independent army cavalry in the battle of encounter, one division can in some measure be handled as on the drill-ground, and can be put into the fight in proper cohesion, must be dismissed. That is an error that has grown upon the exercise-ground, and which the conditions of modern warfare will not admit.

The more, however, that the method of leading is compelled by the pressure of modern development to change from tactical routine and adopt a more or less strategic form, the more unconditionally is it demanded of subordinate leaders that they be, even when independent, continually conscious of the guiding tactical principles, and endeavour to act in accordance with them.

The necessary consideration for the effect of the enemy's fire should never lead to fainthearted dispositions or paralyse the idea of decisive offensive action. If the result of the fight appears doubtful, the most decisive measures must be taken with rapidity and determination, and the last reserve thrown into the fight, regardless of consequences, in order to wrest victory from the

enemy. For daring is in itself a mighty factor of success, and one which exercises enormous influence on the fickle Goddess of Fortune. The calculated boldness of all, and the greatest initiative within reasonable limits of subordinate leaders, must give to the fight of the cavalry mass its peculiar character.

It appears to me that this principle cannot be too greatly emphasised when considering the cavalry tactics of the present day.

If the fight takes a favourable course, the commander will make timely preparations for an effective pursuit, get control of any reserves still intact, and take measures for the concentration of strong bodies of his troops, so as to be prepared for further tactical action. Artillery and machine-guns advance rapidly—when necessary, on their own initiative—in order to come to effective range as soon as possible. Should the fight take an unfavourable turn, the commander will first make dispositions for these arms, unless they are to remain in position and sacrifice themselves to facilitate retirement. They will generally be sent to the rear in good time to a previously selected position. Only then will measures be taken to extricate the troops involved with the enemy, to concentrate them in a safe place, and to make fresh dispositions. Should the enemy pursue with but weak detachments, the offensive should be renewed.

2. *Attack of Localities*

The attack of an enemy who takes up a defensive attitude can obviously only be carried out dismounted. It must be a matter, therefore, for careful consideration whether such an operation shall be undertaken or not. Considerable numerical superiority is necessary to ensure success. A reserve will be needed, which can be used dismounted, to give the final decision at the decisive point, or to meet unexpected events. Besides this, it will be necessary in most cases to make a detachment which shall provide for the security of the led horses, for reconnaissance, and for operating against the enemy's flank and rear. It is the task of such a detachment to seek out and overthrow the enemy's mounted reserve, that it may then be able to co-operate in the main attack. The expression "Mounted reserve," used in the Regulations to designate this detachment, hardly corresponds with the rôle of these troops, which will be offensive from the commencement.

Here also I find myself in disagreement with the idea of the Regulations that the dismounted reserve can be frequently detailed from the troops which have remained mounted (460).¹ The

¹ "As a general principle, a *mounted reserve* will be detailed.

"In special cases, the leader may detail a *dismounted reserve*, which he can make use of at points where, during the course of the battle, the enemy's weakness is disclosed, or which are recognized as decisive objectives for the attack. It is often advisable only to detail such a force, when it is required, from the troops which have remained mounted."

mounted reserve must, as we have seen, operate offensively. The Regulations themselves allot this task to it by laying down that it shall undertake operations against the enemy's flank, his led horses, and his reserves (464).¹ It is, however, not compatible with these duties that the mounted reserve shall at the same time find a dismounted reserve, which can only enter the fight from the rear, and until then must remain behind the fighting-line. Different troops must be detailed from the first for both these duties, otherwise neither of them will be properly carried out.

Should the cavalry commander not have at his disposal sufficient force to meet all these demands, he will generally be better advised to abstain from the attack, and to endeavour to carry out his mission in some other manner. An unsuccessful enterprise not only entails unnecessary loss, but tends to lower the moral value of the troops. It is only when conscious of great moral and tactical superiority, or when there is a prospect of surprising the enemy, that an attack should be dared without the necessary numerical preponderance.

¹ "*The mounted reserve continues the tactical reconnaissance and undertakes the protection of the led horses. It will also assume the offensive against a flank of the hostile position, whenever it is possible to combine it with the above duties. When fighting dismounted cavalry, it endeavours to drive the hostile mounted reserve from the field, and to capture the led horses.*"

The more difficult and serious such an undertaking is, the greater efforts must be made to gain at least a favourable base for attack, as regards not only the direction of the attack but also any special advantages of the ground. The mobility of the troops renders rapid changes of direction possible, such as are unknown to the infantry. Unlike the case of the infantry, therefore, the line of advance and of attack need not coincide. If thorough reconnaissance of the enemy's position, and the ground in front of it, is made in good time, it will often be possible to change the base of attack even at the last moment and to appear suddenly from an unexpected direction.

Therefore, even in the approach, the deployment, and the advance to effective range, the ground should be carefully utilised in order that cover from view and fire may be secured as long as possible. It is also important to clear the country where the approach and deployment will take place of the enemy's patrols, and to do everything possible to prevent his reconnaissance.

Artillery and machine-guns must come into action in such a way that they will be able to combine with the firing-line in concentrating an overwhelming fire against the decisive points of attack. The guns will generally be able to come into action under cover, and to fire indirect against the enemy in position. They will only

engage the enemy's artillery if the latter shows itself in open or half-covered positions with the object of turning its fire on the advancing attack. Otherwise the fire of the artillery will be directed against the enemy's firing-line or any mounted detachments that are visible. It is of importance that a sufficient quantity of ammunition should be brought up, and that it should not be wasted by random fire against invisible targets.

The orders for the fight must be issued with great care and clearness, for, once the battle is begun, it will not generally be possible to make changes of disposition. The difficulty, also, of changing the front of the fighting-line increases in proportion to the size of the units employed. It is therefore of the highest importance not only to determine the front of attack before the commencement of a fight, but also to give a clear order allotting a definite task to each unit, which should, when possible, be made known to all the troops. Only if this is achieved will they be able to act independently according to the spirit of the orders.

When all preparatory dispositions have been made, the attack should, if possible, be commenced simultaneously, unless circumstances demand that some detachments take up the fire fight before the others are ready to co-operate. From the moment that the attack is commenced, but one thought should inspire the troops:

“Forward against the enemy, cost what it may.”

Pressing continually to the front, each must endeavour to surpass his neighbour. Should further advance be impossible without reinforcements, the ground won must be maintained at all costs, even against hostile counter-attack.

The strength of the first deployment of the firing-line must depend on circumstances. In any case the whole breadth of that part of the enemy's front must be simultaneously engaged which is able to direct its fire against the attack, as otherwise the latter will be exposed to flanking or cross-fire.

If the ground allows of a covered approach to within effective range, a sufficiently thick firing-line should be established at once. On the other hand, where cover is scarce, it will sometimes be advisable, when sufficient time can be spared, to deploy at first only a loose, irregular firing-line, which will offer a difficult target to the enemy, or to remain at first under cover and gradually to strengthen the firing-line in the same way until it attains the strength necessary to commence the attack. In the further advance, supports must follow all the firing-lines, to make good losses, keep up the ammunition supply, and to put new moral strength into the fighting-line.

Open country in such cases demands increased depth in order to minimise loss, while close country requires that depth should be diminished,

and it will be found advisable to act accordingly. Close formation can and must be maintained as long as the terrain and the hostile fire admit. It will of course be impossible to expose such formations within range of the enemy's fire. The advance will then consist of rushes, with pauses for breath, of distribution into small units, and the adoption of extended order. The nearer the decision of the fight, the closer must the supports follow, ready to co-operate.

In difficult country the order and cohesion of units must not be lost. It is especially important for the supports as well as the firing-line to make use of any available cover, so that units may be re-formed, ammunition supply regulated, and that the officers may regain their influence over the troops. This latter moral element deserves especial consideration.

While feeling its way forward the firing-line should avoid regular formation, and its rushes should not be made in too small bodies, as such a proceeding is apt to mask the fire of neighbouring detachments. It will likewise generally happen that some portions of the line are able to advance under cover of the ground more rapidly than others. These must then ask themselves the question whether their isolated advance might not lead to a reverse which would imperil the success of the attack. On the other hand, the unceasing pressing forward of all the various detachments is

conditional to success. If localities exist in the foreground which might serve as supporting points for the further development of the attack, it should be considered whether they should not be occupied as rapidly as possible, and, where necessary, secured against counter-attack by being placed in a state of hasty defence. The advance of neighbouring detachments may then be facilitated from such points by energetic fire action. Such points at the same time secure the possession of the ground won and, under certain circumstances, protect those portions of the artillery and the machine-gun detachments which may accompany the attack, according as circumstances dictate. In any case such a measure (accompaniment by artillery and machine-guns) brings moral support to the attacking-line, and may at times prevent a defeat.

As soon as the firing-line has arrived within assaulting distance its fire must be increased to the utmost. All detachments in rear press forward regardless of loss as soon as they become aware that the first line is preparing for the assault. At the trumpet-call "Rapid advance"¹ the whole hurl themselves with the greatest determination and with loud cheers upon the enemy. Any reserves which may be still to the rear strain every nerve to reach the advanced firing-line. The assault should, if possible, be simultaneous.

¹ "Rasch vorwärts."

But the effort to secure this should never lead to detachments waiting for each other. Where a possibility is offered to single portions of the force to penetrate into the enemy's position they must advance independently, and all other detachments must conform.

It is important that the assault should not be begun too early, but that the firing-line should work its way forward to the closest range before rising for the final charge. The Infantry Drill Regulations lay down 150 paces as a guide for this distance in peace. That is a great deal too much. I do not think that the firing-line, especially in deep ground or uphill, can "rush" forward in full marching order 150 paces after having already carried out a lengthy attack. These instructions of the Infantry Drill should certainly be modified. Cavalry, however, should not fall into this error. A premature assault may imperil the success of the attack, because physical force may fail, and the enemy's fire is given a chance of regaining its full strength. The fire weapon should rather be used up to the last moment. The assault should take place only from the closest possible distance, and this will ensure success. For the rest, I may draw attention to the instructions laid down in the Cavalry Drill for the dispositions for the attack and for its conduct. On these points it coincides with my view, and it would be superfluous here to

repeat what lies therein. If I have gone into the question of the conduct of the attack rather more closely, it is to emphasise certain points that are not prominent enough in the compressed instructions of the Regulations, and which do not generally receive sufficient consideration.

As to surprise fire action, also, the Regulations contain all the essentials (471-473).¹

I might, however, touch here upon another matter which is connected with dismounted action, *i.e.* the question of armament. It has often been proposed, and from influential quarters, to replace the cavalry sword by some kind of a bayonet. If, it is said, with a certain appearance of justification, cavalry are to assault hostile positions on foot, they must have some *arme blanche* for the hand-to-hand fight, and this can only be a bayonet. The war in Manchuria, where such *mêlées* repeatedly took place, is cited as a proof of the necessity of such an armament. I cannot ally myself with such proposals. As to the repeated

¹ "Cavalry may succeed in causing hostile detachments considerable loss, and in upsetting their dispositions, by a surprise appearance combined with an unexpected and simultaneous opening of fire. By means of skilful use of ground, and by reason of their mobility, they can rapidly disappear and escape hostile fire action, as soon as they have obtained the desired results."

"As many carbines as possible must open fire simultaneously. The leader must do his best to select such ground for the surprise as will permit of the horses being kept under cover close at hand."

"Horse artillery and machine-guns are necessary to produce the full effect of fire. Occasionally the co-operation of the cavalry may be limited to protecting the artillery while taking up a position, whence it can suddenly open a rapid fire on the enemy."

hand-to-hand fights in the Russo-Japanese war, these took place principally because the Russians found it impossible to evacuate their entrenchments in time, and that they took such full advantage of cover that they were in some measure surprised by the attacker. These examples can certainly not be adapted therefore to the dismounted action of our cavalry. With them it will never be a question of prepared positions—which cavalry will, as a rule, neither attack nor defend—but of actions resulting from a battle of encounter. In such cases, however, as the experience of military history teaches us, a hand-to-hand fight is quite exceptional. Even the struggle for localities is fought out almost entirely with the firearm. If the defence should consist of dismounted cavalry and cyclists, it cannot as a rule be assumed that such troops will allow the attack to come to close quarters. They will more generally, as soon as the decision of the fire fight has become clear, endeavour to reach their horses or cycles and to escape the fire of the pursuit. As a matter of fact, therefore, dismounted cavalry would really only use the bayonet on foot in quite exceptional cases, and it would only be justifiable to introduce it if there were no attendant disadvantages. Such, however, is not the case. I would regard the abolition of the present sword as a great danger, calculated to seriously injure the morale of the cavalry.

Our lance is an excellent weapon for the charge, but for single combat only in cases where the men have freedom of movement. In the close turmoil of the fight it is very difficult to handle with success; besides which, it easily becomes unserviceable on striking an object too heavily. Should it pierce a body at the full speed of a horse's gallop it will generally bend on being drawn out (if indeed the rider in his haste extricates it at all), and then becomes unserviceable. In such a case the man needs his sword. A short bayonet can never replace this, and a compromise between a bayonet and a sword would be of but little service. If the sword is taken away from the cavalry soldier he will be rendered in many cases weaponless. There can be no doubt of this. And the consciousness of this drawback would very soon be felt by the troops and would damp their eagerness for the fight.

The case, then, is this. When confronted by a hostile cavalry of any activity, the mounted combat, the *mêlée*, at least for smaller detachments and patrols, will be of almost daily occurrence; while, as we have seen, the hand-to-hand fight on foot must be most exceptional. To injure the efficiency of the troops for their daily rôle for the sake of such isolated occurrences I hold to be a great mistake, and therefore hope that the arm will be spared this fate.

3. *Defence*

As regards the principles of the defence, I may draw attention to the instructions laid down in the new Cavalry Regulations, which coincide with my views in all essentials. There are, however, still a few points to be raised which seem to me of importance.

First and foremost, I think that it follows, from the above arguments, that, in the case of cavalry operating independently, engagements may often take place which, with a generally offensive intention, must be conducted at times in a defensive spirit and with only part of the troops—that is to say, where it is not the intention to act on the defensive with the whole force, but to use the defence only as a means of resuming the general offensive later at the most advantageous time. It will be possible, especially in the battle of encounter, to defend favourable positions or localities with the advanced troops, either to gain time for the arrival of the main body, or else to oblige the enemy to weaken his reserves, against which the offensive is intended. This combination of attack and defence will frequently occur, I am convinced, even in the battle of encounter.

In such cases the defence must endeavour to deceive the opponent and to provoke the attack. Efforts will be made, while putting but few

men into the fight, to give the impression of strength in the firing-line, and yet so to dispose the troops that attack will not appear impossible, if carried out in sufficient force. Groups of men on a broad front, a liberal expenditure of ammunition, and sometimes the holding back of artillery and machine-guns, are the means whereby the enemy may be thus misled.

But, even if the defensive on a large scale is adopted because the force is considered too weak to take the offensive in the open, the guiding principle will still be, as I have already indicated, to obtain a decision in the defensive fight by an offensive counter-stroke, in so far as the force and the circumstances of the ground in any way permit. This is a fundamental principle of the spirit of cavalry.

The force destined for the counter-attack should accordingly be detailed from the first. Efforts must be made, by using favourable country for the defensive front and thus being able to occupy it weakly, to spare every available man for the counter-attack, and to compensate for the weakness of the force in position by ample ammunition, well-arranged cross-fire, and similar measures. The troops designed to play the offensive rôle must first be placed in reserve, withdrawn, as far as possible, from view and fire of the enemy. As soon as the situation is cleared up, they will be placed in *échelon* behind that flank

from which the counter-stroke will take place. Whether this will be a mounted or dismounted attack depends on the character of the ground and similar circumstances. In any case a base for attack outside the limits of the enemy's fire must be reached, and, where possible, by surprise.

It is therefore of the highest importance that the enemy shall be prevented from gaining observation as to the conduct of the reserve, in order that its presence may eventually come as a surprise to him. Hostile patrols must be attacked with remorseless energy wherever seen, and, if possible, put out of action. Those look-out points, on the other hand, from which observation can be made of the enemy must be occupied early in the fight.

The cavalry will, as a rule, only undertake a completely passive defence, where the object of the fight is to hold the crossing over some obstacle, to defend isolated localities, or to gain time. In such a case the question is one of the obstinate defence of a definite object, sometimes perhaps, also, of a retirement from one point to another. Such an operation, however, is always difficult to carry out on account of the led horses, and should only be attempted in very favourable country. It demands that the fight shall be broken off—always a difficult matter, and, to cavalry encumbered by their led horses, one of considerable danger. The horses certainly render

it possible, by making a proper use of the ground, to withdraw more rapidly than could infantry in the same case. On the other hand, however, they tie the dismounted troops down to a definite direction of retreat, and remounting, when pressed by the enemy, is always a critical matter.

4. *Breaking off the Fight, Retreat, and Pursuit*

When it becomes apparent during the course of a fight that success cannot ensue, the commander must decide in good time whether he will carry the engagement through or break it off. To choose the right moment for the latter operation is generally extraordinarily difficult, even when it has been planned from the commencement. To make the necessary dispositions, also, demands great tactical skill. To continue the fight with determination, perhaps till night-fall, will often cost no greater sacrifice than the breaking off of the engagement and the attendant retreat.

Generally speaking, such engagements will only be those which are fought out on foot. The more open the country, the closer the enemy, and the greater the number of troops which have already been thrown into the fighting-line, so much the more difficult will it usually be to break off the fight. The circumstance also as to whether the led horses are mobile or immobile,

and their position, will naturally influence the decision. On the other hand, it is easier to extricate the force after some success has been gained; whether it be that a hostile attack has been repulsed, or that our own troops have made a successful counter-stroke. History teaches us that at such moments there is generally a lull, during which the opponent is obliged to bring up fresh troops or to make fresh tactical dispositions.

Even under such favourable conditions, however, it will generally be impossible to break loose from the enemy without suffering heavy loss.

In defence, if the ground is especially favourable, it will certainly be possible at times to extricate a force without considerable loss. If it can rapidly withdraw from the firing-line and retire covered from pursuing fire, the whole force may under certain circumstances simultaneously evacuate a position, that is to say, if the enemy is still so far distant that he is unable to employ pursuing fire until the defender has reached a place of safety. How seldom, however, will such be the case! Small detachments will generally have to be sacrificed to secure the retreat of the main body. This means that various especially strong supporting points in the position will be occupied, and the force will withdraw under cover of them.

Military history offers us repeated examples

where the attacker makes desperate endeavours to overpower such points, and in so doing forgets to pursue the withdrawing masses of the defender's troops. This, for example, was the part played at the battle of Weissenburg by Geisberg Castle and Schafbusch, and the château with its enclosed park at the battle of Coulmiers. Under cover of these points, against which all the efforts of the French were concentrated, the defenders were able in both cases to withdraw so slightly molested that even touch with them was completely lost.

The defence of such supporting points, which must be conducted with the utmost obstinacy, frequently ends in capture, but the end gained is worth the sacrifice. If the endeavour is made to withdraw the whole line of defence simultaneously under circumstances where it is possible for the attacker to bring to bear an effective pursuing fire from the captured position, loss will generally be much greater than that which would be deliberately incurred in arresting the pursuit.

The conditions are similar in attack. At manœuvres certainly we see the attacker when repulsed turn about, and, in a continuous retreat, lay himself open to a pursuing fire, which would mean absolute destruction. I do not think such a manœuvre possible in reality. As the advance has been by stages, so must be the retreat. But, whereas in the advance it was a matter of pressing

forward on a wide connected front, in order to hold the whole of the enemy's position under fire, and *not* of massing together where cover could be obtained, the exact contrary is the case in retreat, and the troops must seek any cover that will shelter them from the fire of the pursuit. Various strong points in the attack which have already been taken and occupied must be obstinately held during the retirement, and from them a heavy fire poured into the pursuit to bring it to a standstill. Care should be taken, even during an advance, to keep such places well supplied with ammunition, which can either be taken forward to the captured position or be at the disposal of the retiring troops.

I do not think that it will be possible in any other manner to break off an attack which has penetrated to within effective range of the enemy, or to carry out a compulsory retreat without disastrous loss.

The troops must fall back, obstinately contesting the ground and continually recommencing fire from any favourable position. The commander must make careful preparations, even when advancing, that a possible retreat shall not lead to disaster, but will be able to find prepared points of support. All detachments, however, that are outside the effective range of the enemy's fire, and still capable of manœuvre, especially artillery and machine-guns, must from commanding posi-

tions bring fire to bear on those troops which are harassing the retreat, regardless of the losses they may themselves incur. In such a moment everything must be subordinated to delivering the retreating masses from that destruction which the fire of the pursuit portends. Any advance of pursuing cavalry, also, must be met by heavy fire from such detachments, regardless of the expenditure of ammunition.

A retreat, then, requires particularly intelligent handling. The various detachments must be provided with instructions that are clear and definite. The commander must have his troops well in hand, must arrange for the occupation of any positions, decide which detachments shall cover the retreat, dispose of the artillery and machine-guns, determine the line of retreat of the various units, with due regard to the situation of their led horses, and arrange for the occupation of the rallying position. He should himself only leave the field when the force has got clear of the enemy. He must then, however, straightway attend to the rearrangement of the tactical dispositions, and take the other necessary measures. Any reserve still in hand must be used to check the pursuit where possible by a vigorous offensive. It is just in such situations that a determined counter-attack, even by a weak force, makes the greatest impression on the enemy.

As to the further conduct of the retreat after a successful extrication, definite instructions are naturally impossible. Everything depends on the circumstances of the moment. The possibilities of resuming the offensive must be borne in mind, even during a retirement. To this end it is frequently advisable to fall back partially towards a flank. Gneisenau, after the defeat at Ligny, directed the retreat on Wavre, in order to be able to take up the offensive again on the following day, and thus supplied us with a brilliant example well worthy of imitation even where the forces engaged are but small.

If it is a matter of mounted combat, the breaking off of the actual fight is quite impossible. Troops once engaged must carry the fight through. Even when retreating from the *mêlée*, fighting cavalry has no kind of means of extricating itself. It is then entirely dependent on the enemy, and can only retire at the most rapid speed. Reserves alone are able to bring the immediate pursuit to a standstill by intervening in the running fight. Generally, however, this will only end when the horses of the victor are quite exhausted, or when the latter feels the necessity of getting his troops in hand and forming again for fresh duties. The further conduct of the vanquished troops must depend on the condition of the horses and the general situation. It is of importance to withdraw beyond the reach of

the enemy as soon as possible in order that full freedom of action may be regained.

If the fire of the hostile artillery is to be feared, it is advisable to retire extended without regard to tactical formations, and making the best possible use of the ground. The troops will then only rally again beyond the range of the enemy's fire. The same naturally holds good for the retreat from a dismounted action after the men have remounted.

The commander will be well advised to inform his senior subordinates, if not all the troops, before the fight begins where the troops are to concentrate again in case of a reverse. The necessity for such dispositions generally passes unnoticed in peace, because pursuit is never thoroughly carried out, and the beaten troops are not so completely broken up as has repeatedly happened in war in the past and will happen again. We should not deceive ourselves in this matter, as otherwise there is a danger of completely losing control over the troops. Whoever expects to be able to rally a beaten cavalry division after a mounted fight by blowing the divisional call lays himself open to bitter disappointment. If the enemy is pursuing with energy this will only be possible in the very rarest cases.

Before the commencement of the fight, arrangements must also be made for the rear communica-

tion, as there will otherwise be a danger of losing transport, and thereby ability to operate. Far to the rear or close at hand are the two only possible positions for it. In the first case an escort whose strength will be dictated by the circumstances will always be necessary.

It should also be remembered that wagons should be able to turn round where they are halted. If single teams are unable to turn about on their own ground, it will be better to park the whole of the transport in such a way that it can easily be moved in any direction. It is then also easier to protect it against attack. If there is no fear of attack, the various columns may turn off the road with intervals corresponding to their length. It appears to me to be of especial importance to lay stress on these circumstances because in peace exercises there is no transport, and commanders consequently get accustomed to paying little attention to it.

As regards the pursuit, it is necessary to differentiate between a tactical and a strategical pursuit. The latter must crown the success of the former.

In mounted action, the beaten opponent must be kept at the point of the sword as long as the strength of the horses holds out. Detachments not immediately pursuing must be concentrated, and must seek to regain their ability for manœuvre as soon as possible.

After a dismounted action on the defensive, the

pursuit will first be taken up by rifle fire. Any mounted reserve there may be should be launched to the charge against the retiring enemy as soon as the pursuing fire begins to cease to be effective. A victorious attack, on the other hand, must make every endeavour to gain the position vacated by the enemy, and to occupy ground from whence an effective pursuing fire is possible. The bringing up of the led horses will be of special importance in this case. If they are immobile, a portion of the men must be sent to the rear to bring them up, while the remainder hold the captured position. Any mounted reserves there may be can often be employed to bring up at least a portion of the led horses. Generally speaking, however, all troops not already engaged must, as we have already shown, take up the strategic pursuit as early as possible. This will supplement and complete the results of the tactical pursuit.

Never to let the enemy rest, even when the tactical pursuit has ceased, to prevent him regaining his cohesion, to capture prisoners, horses, and trophies, and, above all, to increase to the utmost the moral effects of his defeat, is the task before us. The immediate pursuit must therefore be combined, wherever possible, with a parallel pursuit commenced in good time. The latter must nip in the bud every attempt on the part of the retiring enemy to take up rearguard posi-

tions, by turning such positions and pressing forward with reckless energy against the actual lines of retreat. It must also endeavour to anticipate the enemy in the occupation of any defiles necessary to his retreat. At such times there must be no thought of sparing horseflesh. Even in this pursuit, however, the commander must give a definite object and a rallying point for the detachments following. He will otherwise, by reason of rapidity of the movements in progress, risk losing control of at least part of his troops, and of allowing them to go farther than the strategical situation demands or admits. For the rest, I may draw attention to the new Cavalry Drill Regulations, the compressed instructions of which contain much that is essential and coincide generally with my views.

V. THE ACTION OF CAVALRY IN BATTLE

In the battle of all arms, cavalry must be handled according to principles which are quite different and almost diametrically opposed to those which characterise its independent action as army cavalry. For, in the latter case, not only is the defeat of the enemy kept in view, but another definite object has also to be pursued. This object can only be attained if successful in the fight, while an unsuccessful battle will paralyse the activity of the cavalry, and may

cost the army the loss of its organs of reconnaissance. However daring its conduct then, it should never be engaged in hopeless enterprises, and should only undertake a fight where success can be reckoned upon with a certain measure of probability.

If, therefore, the strength and intentions of the enemy are not fully known, it will be better, as we have seen, to guard against engaging the whole force in such an uncertain enterprise. Efforts should rather be made, as I have endeavoured to show, to clear up the situation by a careful feeling of the enemy and a gradual engagement of force. Once possessed of this knowledge of the situation, it will be possible either to seek a decision or to break off the fight in time to avoid the risk of incurring too considerable a loss.

Quite different is the case in the main battle. Here the objective is contained in the battle itself. It is the destruction of the enemy that is sought. It is not expected that each single detachment engaged should be victorious, but that the net result of the battle should be a victory. The task of the various detachments is only to engage and to destroy so much of the enemy's force as lies within their power. This naturally holds good for the cavalry. It is not now demanded that each single action of the cavalry should of itself be successful, but that

the general engagement of the cavalry should have the greatest possible effect. A considerable result may often be obtained by the attacking cavalry drawing the enemy's fire upon itself for a time, and thus affording the infantry the possibility of gaining ground to the front, or of re-forming and receiving reinforcements.

To break off the main battle is generally quite out of the question. The very fact that the battle has been begun betokens the intention of carrying it through to a final decision, even where the enemy has shown himself to be in superior force. The various troops which advance to the conflict need not therefore reflect whether *they* have any special prospect of success, but must strive for this success with all their power. This means for the cavalry, in by far the greater number of cases, always at least where a charge is in prospect, *the simultaneous engaging of its whole fighting strength*, naturally in that tactical formation which the conditions of weapons demand. If in its *independent* operations cavalry must be dealt with as a strategical body, and thus employed in the fight, it is *in the main battle* a purely tactical body, which must be engaged *en masse*, and not in detail. This contrast appears, at least to me, to be an obvious one. There is another that is equally clear.

In independent operations it is the duty of the

cavalry, before all else, to defeat the enemy's *cavalry*. Victory over the latter creates the possibility of carrying out its proper task, that of reconnoitring and screening, without being involved in further fighting on a large scale. In the main battle, however, it would be taking quite a false view of its duty if it were to restrict itself to driving the hostile cavalry from the field. Victory over the latter has indeed a certain value, as it paralyses its further action, but it will, in most cases, be comparatively useless for the main issue of the battle unless further consequences result from it. A victory over the hostile cavalry only receives its particular importance when by it the possibility is gained of intervening in the decisive encounter *of the other arms*, and of acting unhindered when, in the course of events, it becomes a matter either of pursuit or of covering a retreat.

Finally, in independent operations, even small detachments can aim at great results, and a division of force will frequently be indicated. In the great battle, however, any considerable effect can only be attained by the action of the mass. The reason for this lies in the size of modern armies.

It will be advisable to concentrate the mass of the cavalry at what are considered the decisive points, in order to be able to engage it simultaneously. Any frittering away of force upon

the field of battle will strike the troops with impotence. We have only to remember the battle of Coulmiers, where the richest prospects of success confronted a cavalry which achieved nothing, because it did not act in concert. Where great tactical units have to be concentrated which are not under a single command, it will be advisable that the laws of seniority be set aside, and the command given to that leader from whom the best performances are to be expected, even though he be not the senior. In the cavalry, more than in any other arm, success depends upon the leader. Nothing is more rare than a good cavalry leader, and it would therefore be a great mistake to ignore such a one, and thus perhaps to sacrifice the fortunes of the day to the Moloch of Seniority. We should rather act like Frederick the Great at Rossbach, when he placed Seydlitz at the head of his cavalry, and we must expect from Prussians to-day the same generosity as Frederick's generals showed in willingly serving under their junior.

The best of leaders, however, will only be capable of great performances if he is fully acquainted with the intentions of the Head Quarters and the idea of the battle. He must therefore be not only closely informed before the fight, but must remain throughout its progress in continual communication with the Head Quarters, and must be made aware of all dispositions and

at the same time must share its observations and be in touch with its intentions. The German cavalry would certainly have been able to fight a more successful and connected action at Mars la Tour, as at Coulmiers, if it had been better informed as to the general situation, and had thus been in a position to appreciate for itself what was necessary and what was possible.

If, however, understanding between the commander-in-chief and the leader of the cavalry is established, and if full confidence in the judgment and energy of the latter exists, he must be allowed that necessary freedom and independence which alone ensure successful action. On the other hand, he should never wait for orders to intervene, but must himself turn any favourable moments of the fight to account by rapid and energetic independent action. Even if he is definitely placed at the disposal of the commander, he should not shrink at critical moments from acting on his own responsibility, informing, of course, his superior officer of his actions. As an example of the relations between the supreme command and the cavalry leader I would draw attention to the conduct of King Frederick and General von Seydlitz in the battle of Zorndorf. The King felt the necessity of restoring the wavering fortunes of the day by launching the cavalry to the attack, but Seydlitz independently chose the moment for the charge; and success justified

them both. When, however, in the battle of Kunersdorf, the General was compelled to order the charge against his better judgment, the consequences were a heavy defeat for the cavalry.

1. *The Army Cavalry on the Flank of the Battle*

I have already repeatedly indicated that the most favourable position for the army cavalry is to a flank and in advance of a flank of its own army, and, where possible, of *that* flank on which, in the battle of offence, the decision will be sought, or, when in defence, the main hostile attack may be expected.¹ The new Cavalry Regulations adopt this point of view. It is therefore superfluous to comment further on the advantages of such a position. Unless the cavalry is going to resign all claim to offensive action, this position will compel it to seek battle. This may also happen when the cavalry masses of *both* sides endeavour to take up such a position, and thereby naturally come into collision, so that a sort of battle of encounter results, but one, however, that will bear quite a different character from the battle of encounter in strategic operations.

There will already be a difference, in the fact that the strategic approach and the tactical disposition in advance guard, main body, and reserve, will be wanting. In the consciousness, moreover,

¹ "Cavalry in Future Wars," Part I. chap. v.

that, whatever the relative strength may be, the decisive battle has, under any circumstances, to be sought, it must be prepared for systematically. The cavalry will therefore have to adopt a wider front, or even deploy while farther from the enemy, having to its front only the necessary bodies for reconnaissance and security. The reconnaissance must be of a double nature. Timely measures must first be taken to ascertain whether, on the probable lines of approach and communication of the enemy, further hostile forces, ammunition columns, or supply trains are hurrying to the battle-field. Where the squadrons already pushed forward have received the necessary further instructions, this reconnaissance will often develop from the corresponding strategic measures. It will, however, frequently be necessary to send forward new organs of reconnaissance, even up to the strength of squadrons, as is discussed in the chapter on "Close Reconnaissance and Reconnaissance for the Fight." Besides this far-reaching exploration, immediate tactical reconnaissance for the fight must also be arranged; this will, in general, be directed against such hostile troops as may be within tactical reach, and must at the same time comprise reconnaissance of the ground. This service must be carried out by contact patrols and it is obviously impossible to separate the two duties.

The reconnoitring organs suffice in such a

case for safety to the front. To the flank, however, local flanking patrols must be pushed out during the advance. It may at the same time be advisable, for the protection of the main body, and as points of support for the reconnaissance, to occupy defiles and other important places to the flank or front by dismounted detachments up to the strength of a squadron or more.

Screened by these various measures, the cavalry mass now advances fully deployed for the fight. It must be *écheloned* so far from the flank of the army that it cannot come under the fire of its own infantry, and that it can, if in any way possible, turn the outer flank of the hostile cavalry. The latter may then easily become hampered in movement by its own troops, and will have to deploy eccentrically, a disadvantage under any circumstances. Connection with our own army must, naturally, not be lost, so that in case of an unfavourable issue of the fight the cavalry may not be completely severed from it. The tactical dispositions, which should always be of an elastic nature, must obviate this.

That depth must be maintained in so far as it allows the necessary frontage, is easily understood. In deploying concentrically the various groups do not by any means need to be in touch, as during the advance they will gradually approach each other. They can, or rather must,

be disposed at wide intervals, and it is better that these should be too great than that the necessary depth should suffer. A reserve must always be detailed and at the disposal of the commander, in order that he may retain his influence over the decision and be ready to meet the vicissitudes of the conflict. For the rest, I would refer to the tactical principles laid down in detail in my earlier work.¹

Artillery and machine-guns will generally be able to remain effectively in action longest on the inner flank, and in this position can also form a connecting-link between the cavalry and the flank of the army. Special circumstances, however, may, of course, lead to their employment elsewhere. Their employment on the extreme outer flank, however, so often seen in peace, is to be guarded against. From such a position they can indeed often bring an effective flanking fire to bear, but are, on the other hand, in great danger, especially when opposed to a numerically superior enemy. Should the outcome of the fight be unfavourable, they will generally not only themselves be lost, but may often contribute to the difficulties of the beaten squadrons. Machine-gun detachments must be pushed forward recklessly to within effective range of the enemy, and should not shrink from the danger of occasional capture.

¹ "Cavalry in Future Wars."

Should the hostile cavalry be driven from the field, it must be pursued with sufficient force to prevent its rallying and re-forming, and to complete its material and moral defeat. Should it seek shelter behind occupied points of support, farms, woods, and the like, these must be attacked immediately by employing the greatest possible fire power. It is a matter of absolute necessity to gain possession of such points, as they may otherwise stand in the way of further action.

All portions of the cavalry not required for the pursuit should endeavour quickly to regain their tactical cohesion, that they may be ready for further effort. If localities are at hand by the occupation of which the ground won can be secured, they must at once be garrisoned by dismounted men. Artillery and machine-guns will, in so far as they are not detailed for the pursuit, or as they return from it, be brought into position with a like object in view. Every effort must be made to utilise to the full the advantages which the different methods of action of which the arm is capable confer, and thereby to minimise the chances of defeat. *To reckon with the charge alone is, even on the field of battle, out of date, and calculated to limit the effect of cavalry action.*

If a position of readiness has at first to be taken up, as will generally be the case until it is known

in what direction further developments will take place, it must be as secure as possible from the view and fire of the enemy, but must be one from which immediate action can be taken. A disposition in groups of units will generally be the most suitable formation. What else is to be done the circumstances of the various cases must decide; the indispensable condition is that the cavalry should never be present and inactive throughout the course of the battle. It must in all cases prevent the enemy's patrols from making observations as to the disposition of our own army, while, on the other hand, its own reconnoissance should never cease.

We should, however, be quite wrong to regard such action as sufficient; rather must our whole attention be devoted to participating in the decisive battle, if in any way possible. With this view the cavalry must be careful to ensure its own advance to that portion of the ground where the decisive battle will probably take place, so that the charge will not meet with unexpected resistance and obstacles when the moment comes to ride it home. When this crisis of the battle approaches, the cavalry must be ready to intervene, whether it be to complete the defeat of the enemy and to facilitate the victory of its own infantry, or to support the latter in difficult situations.

Deployment in masses and depth, if possible

in several lines, is indispensable for such attacks. The necessary tactical principles for this I have endeavoured to develop in an earlier work.¹ What I then said is to-day of even greater weight. The outer flank must be secured by reserves against the action of freshly arriving hostile cavalry and the covering troops of the enemy's artillery. Only when reconnaissance has clearly shown that there are no more such hostile troops at hand can the reserves be dispensed with.

The attack will best take place from the flank, and will then generally find a double objective in the hostile artillery and any infantry that may be farther to the front; but both should be dealt with *simultaneously*. There may also be a possibility and a necessity of attacking from the rear. Circumstances must decide this. In any case, there should be no question of a gradual engagement of a force, but the charge of the whole mass must, even when disposed in lines, be carried out in a simultaneous and preconcerted manner.

The moment chosen for the attack is also of great importance. As the crisis approaches, endeavours must be made to get as close to the enemy as possible, in order to shorten the distance that will have to be covered in the charge. In so doing, the protection of the ground must be

¹ "Cavalry in Future Wars."

used as long as possible for cover, at least from view, without adhering to stereotyped tactical formations.

However important and desirable it may be to contribute to the great decision by a glorious cavalry charge, it should be borne in mind that the possibility of this will only occur in very rare cases. The more cultivated and agricultural the country in which the war takes place, the rarer will be these opportunities, as the circumstances of the ground offer so many opportunities for local defence.

If we consider the battles of the Franco-Prussian, the Russo-Turkish, and the Manchurian wars, we must soon admit that great cavalry charges were practicable only in very isolated cases. The peculiarities of the ground rendered them impossible; nor can this alter in the future. If it is to the interests of the defence to seek open country with a good field of fire, the attacker, on the other hand, will endeavour to choose ground for the attack which will give him cover from fire and view. On the whole, the possible European theatres of war are but little suitable for charges, owing to the extent to which they have been cultivated. We must not be deceived in this matter by the experience of our peace manœuvres. For then suitable ground has to be sought for the operation of the three arms, and considerations of compensation make

it necessary to choose country as free from cultivation as possible.

War, however, knows no such considerations, and we must not blind ourselves to the fact that the opportunity for great decisive charges will but seldom occur. The greatest imaginable error, therefore, which the cavalry could possibly commit would be to adopt a waiting attitude and renounce all other kind of action, in order that the possibility of a great charge might not slip by unutilised. Besides the decisive attack, there is another wide field of activity indicated by the conditions of modern war, where cavalry can operate without being compelled to renounce co-operation in the decisive battle when circumstances will allow.

This sphere of activity lies in rear of the hostile army. Here columns of supply of every kind are streaming forward to the fighting-line. Here are massed the hostile reserves, already waiting for the decisive moment. Here stands the heavy artillery of the enemy in action, often without an escort. And it is here that opportunities for decisive action must be sought.

If cavalry can succeed, especially in battles of several days' duration, in interrupting the hostile supplies from the rear, in surprising the enemy's reserves with fire, causing him heavy loss and compelling him to deploy against it, or if any advancing portions of the enemy's army can be

brought to a halt and prevented from reaching the battle-field at the right time, greater results will probably be obtained than by a doubtful charge. This is quite apart from the great moral impression which such action must produce on leaders and troops when the alarm suddenly re-echoes from the rear, and the shrapnel of the cavalry carries confusion and consternation amongst the reserves and supports of the fighting-line. The enemy's artillery, also, firing from covered positions, and otherwise so difficult to reach, may then fall a prey to a bold cavalry, and will offer opportunities for a success of far-reaching importance.

Such action must, of course, be conducted with a due co-operation between mounted and dismounted action.

Against intact hostile reserves the firearm will be principally used, and endeavour must be made to surprise them in the formation of assembly or on the march. Against columns of wagons, also, it will be well to commence with fire action, by shooting down the horses of the leading teams, and so bringing the columns to a halt. They must then, however, be actually taken possession of and taken away or destroyed, in so far as this cannot be done by artillery fire.

The cavalry must therefore endeavour to be ever active, and to co-operate unceasingly by damaging the enemy and shaking his morale.

Great results can, however, only be obtained if antiquated views, handed down from time immemorial, are discarded, and the demands of modern war and the capabilities of modern cavalry are recognised. It is not a question as to whether we cavalry men are to fight mounted or dismounted; but that we must be prepared and determined to take part in the decision, and to employ the whole of our great strength and mobility to this end.

2. *The Army Cavalry as a Reserve behind the Front*

The same principles hold good for those portions of the army cavalry which find themselves *behind* the fighting-line, and not on the exposed flank. Such a position is generally, indeed, undesirable, but may be the outcome of circumstances.

The task before the cavalry is here naturally quite a different one from when on the flank of the army. The necessity, or even the possibility, will in this case scarcely ever occur of having to deal with hostile cavalry, and of opening thereby a way for intervention in the decisive battle. It is much more likely in this case to happen that the cavalry will have to adopt a waiting attitude, and see whether its engagement as a mounted arm will be necessary. During this period of waiting, the cavalry must remain beyond the range of

hostile fire, but as near the fighting-line as intelligent use of the ground will permit. Its position should never be chosen so far to the rear that it cannot arrive on the spot at the right time for the attack; for the moments which offer a favourable prospect for a charge are often fleeting—they depend upon the tactical situation and the moral condition of the opponent. These conditions may, however, quickly change if, for instance, reinforcements should arrive on the field.

Thus, at Mars la Tour, when the 6th Cavalry Division advanced in order to attack the obviously shaken and retiring 2nd Corps of the French, it struck, according to the account of the German General Staff, not this corps, but the intact Garde Grenadier Division of Picard, which had already advanced in support, and the charge was frustrated.¹

To be prepared to meet such conditions it will generally be advisable not only to remain as close behind the fighting-line as possible, but to prepare for a rapid deployment to the front, so that a disposition in groups, with the necessary deploying intervals, may be adopted behind that part of the fighting-line where the ground is especially

¹ According to the French General Staff history, this cavalry met a battalion of the 25th Regiment of the 6th Corps, as well as the 3rd Chasseur Battalion and a battalion of the 77th Regiment of the 2nd Corps. At all events, the attack met, not retiring, but unshaken troops.

adapted to a charge of large masses. If it can be seen that the crisis of the fight is approaching, and that the intervention of the cavalry may be necessary, the latter should advance still closer to the fighting-line, making, of course, full use of the ground for cover, but no longer taking heed of small losses.

The cavalry will advance to the charge in order either to complete the defeat of an already wavering enemy, and to capture his artillery, or to relieve its own infantry exhausted in the fight or suffering from want of ammunition, when other reserves have been used up, or have not yet arrived on the spot. The attack will probably always have to be conducted against an extended front. Flanking and surprise attacks will rarely be possible under such circumstances. It will scarcely ever be practicable to carry out *separate* attacks against the hostile infantry and artillery, as in the case of a flank attack. The charge will, rather, in by far the greater number of cases, first strike the hostile line of infantry, and must endeavour to ride through this, and then to fall upon the enemy's artillery.

The formation for attack must be chosen to correspond with this point of view. A considerable extension will be necessary for the first line, so that, although the wings of the attacking-line may be exposed to flanking fire, the main portion of the front of attack will

only have to reckon with frontal fire, and the enemy will not be in a position to direct a concentric fire against it. The great range of modern weapons demands a very considerable extension for this purpose if success is to be ensured. Suitable ground, also, must be chosen for this deployment. It will often allow, if rightly used, of one or other flank finding cover. A previous close study of the ground over which the attack is to be made is therefore imperative for the cavalry leader, even though it may entail personal exposure to the enemy's fire.

Necessary, however, as this extension is, a formation in depth in two or three lines is also imperative if decisive results are to be gained—this is, as I have already pointed out, the formation especially necessary against firearms. To lay down the distances which must be taken up between the lines according as infantry or artillery is the objective, as is done in the Regulations, will naturally be impossible in most cases, as both arms will have to be reckoned with simultaneously. A mean distance of about 250 paces would generally meet the case.

It is obvious that not only the preliminary deployment, but the formation for attack must take place beyond the effective range of the enemy's fire, for, once inside this zone, flank movements can no longer be carried out, and nothing

else can be done but to gallop straight to the front. As, however, our own infantry will have to be ridden through in the charge, it is impossible in such a case to attack in close order. The first lines should therefore be of loose single-rank formation, with wide intervals from man to man. This is also to be recommended on the ground that it will allow a greater breadth of front for the same strength. Behind the leading lines squadrons can then follow in column of troops, which can easily ride through their own infantry, and adapt themselves to the ground, utilising for their advance the less exposed portions of the terrain. In such dispositions there can naturally be no talk of regular distances, and the circumstances of the case must decide.

If sufficient force is available, reserves must follow behind the centre and in *échelon* behind the flanks. Their duty will be to turn against hostile cavalry and other troops which may take the advancing mass in flank or may threaten a charge.

The batteries and machine-guns belonging to the cavalry will usually remain at the disposal of the cavalry commander, even during the great battle. If a charge is launched it will sometimes be advantageous to use them for flank protection, for which purpose they may be temporarily held back. Such cases, however, will be rare. The commander will therefore have to consider

whether it is not more advisable to let them take part in the general engagement, even when the cavalry is not yet called upon to intervene. For it must be clearly understood that in this case, as in the other, where the cavalry is on the flank of the army, there will seldom be an opportunity for the charge, for reasons already given.

As, however, the cavalry in the former case should not remain inactive, even if there is no opportunity for the *charge* during the decisive battle, the same holds good where the cavalry is placed behind the front of the army.

Having a less extensive field of action than in the case of the cavalry on the flank, it is all the more necessary, if there is no chance of a charge, for it to act in the manner of a reserve. The cavalry must not shrink, when necessity demands, from employing its whole force in the fire fight, disregarding for this purpose its purely cavalry rôle, which may, perhaps, be resumed later. The first essential is that victory shall be won. To this end all available forces must co-operate. We will find a good example to follow in the battle of Fredricksburg and the manner in which Stuart threw the whole of his cavalry into the fight. The employment of cavalry in the War of Secession in North America, the study of which I have urgently recommended, can here again serve us as a guide to follow.

3. *Pursuit and Retreat*

In critical study of military history there is continual cause for complaint that after a victorious battle no effective pursuit, with a few brilliant exceptions, has ever taken place. These complaints are justified. It must, however, be conceded that a failure of the pursuit may be traced in most instances to the force of circumstances.

As the day of battle draws to a close and the decision has taken place, the *victorious attacker* has generally accomplished a long march to the battle-field and carried out an exceedingly exhausting attack. The troops have perhaps all been employed in the battle, down to the last reserve. Ammunition, food, and water are often lacking. It is therefore quite natural that the mere physical energy required for a pursuit is wanting. If, on the other hand, the *defender* is successful, it is generally against a superior enemy, or one that is thought to be superior. With the greatest expenditure of moral and physical force he has held his own. In the evening of the day of battle, when the attacks cease, he is still perhaps scarcely conscious of his victory, and still imagines that the enemy is endeavouring to turn his flank. He awaits renewed onslaughts, and will be fearful of imperilling his success by leaving the positions

which he has maintained with such difficulty, in order, on his side, to take up the offensive. It is therefore but natural that a pursuit should at first remain in abeyance. If, however, it is not carried out at once, the favourable opportunity is generally lost for ever.

The *beaten defender*, on the other hand, has often still a surplus of fresh troops. On the day of battle he will generally have had no exhausting marches to undertake. The battle has not imposed nearly such heavy physical demands upon him as upon the attacker. He has also been able to supply himself during the fight much better than the latter. To these factors of advantage must be added the instinct of self-preservation of the individual, which continually induces afresh the desire to escape from the grasp of the enemy. What can be more natural for the beaten defender after a lost battle than to march long distances, and thus successfully to evade pursuit, unless it be immediately undertaken? General von Goeben gave orders on the evening of the battle of St. Quentin that all troops must march five miles¹ the next day. But the French had already covered a similar distance during the night, and were no longer within reach.

The *beaten attacker* also may, after the battle, no longer have at his disposal sufficient physical force to carry out a further immediate march, but,

¹ Five German miles = 23 English miles.

as *before* the fight he was in superior force, or considered himself to be so, it will not be necessary for him to withdraw from the enemy as quickly as a beaten defender. The reason for this lies in the difficulty which exists for the latter of taking up the pursuit. The attacker can then utilise the time after the battle to secure himself in the terrain and to re-form his units. He falls back on his reserves of supply and ammunition. Unless he has suffered a destructive defeat, the pursuer will generally find him the next morning again in a condition to offer some resistance.

The factors of weakness, therefore, which allow but seldom of an effective pursuit have their origin in the nature of circumstances, and are exceedingly difficult to cope with.

Energy and activity sufficient to this end are only to be found in moments of the greatest moral excitement, under the influence of overpowering personalities, or under special conditions, such, for example, as resulted after the battle of Waterloo. In the future, however, we shall generally have to reckon that these factors of weakness will prevail and the pursuit fail unless it is prepared with conscious intention in good time, and initiated with energy.

Here will certainly be required careful leading, good tactical judgment, and rapid decision.

Before all things, it is essential that any reserves still available should be sent forward in the direc-

tions important for pursuit as soon as it is judged that the battle is won, and that their supply should be arranged for before the pursuit begins.

I may cite the battle of Woerth as an example. The 4th Cavalry Division stood at the disposal of the commander. Observation troops were sufficient in the direction of Hagenau and Zabern. This cavalry mass was, however, only brought up late in the evening, and arrived on the field too late to take up the immediate pursuit, although it had long been realised that a pursuit would become necessary.

The infantry pursuit failed for different reasons. At the end of the day, when success inclined to the Germans, a fresh Württemberg brigade arrived upon the battle-field. Hot fighting still raged about Fröschweiler, in which the whole of the Vth and XIth Corps were involved. The Crown Prince, with a right appreciation of the situation, sent forward this brigade in a parallel pursuit against the right wing of the French in the direction of Reichshofen, where it could have denied the exit at Zabern to the French. This brigade, however, allowed itself to be deflected from its objective, and involved in the fighting round Fröschweiler, the capture of which was no longer of any real importance from the point of view of the Head Quarters.

If the affair is practically decided, as was the case at Woerth, the reserves still in hand

should no longer allow themselves to be drawn towards the various foci of the battle, but must be sent forward by the Commander-in-Chief with boldness and determination in the now more decisive directions of the pursuit.

The same reasons and principles hold good for the pursuit by the cavalry.

The cavalry commander must continually keep his finger on the pulse of the battle, and not watch only that portion of the great drama which is being played under his own eyes.

Should the scales of victory incline in favour of his own army, if he considers that the intervention of his cavalry will no longer be necessary to complete the victory, he will often be well advised to renounce his share in the decisive battle, at least by a charge which would entail heavy loss, and to husband all his force for the pursuit, and to prepare and make dispositions for it. This consideration is of especial importance for that portion of the army cavalry which is concentrated on the flank, as to it must chiefly fall the task of pursuit.

Great attention should be paid, even during the battle, to nursing the horses. They should be fed, not from the small reserve of forage carried on the saddle, but from wagons, which can be easily sent to the flank of the army, emptied, and used later for the transport of the wounded. It is of great importance that these measures should be

taken in good time. The forage carried will be needed during the pursuit, for supplies for the horses cannot be reckoned upon in country where armies have been on the move. It will even be advisable to take forage wagons with the pursuing force itself. When the maintenance of physical strength has thus been cared for, the next step is to push patrols and squadrons rapidly forward to reconnoitre the outer lines of retreat of the enemy. While these have been ascertained, the march in pursuit must be undertaken without hesitation, and continued *even during the night*. While daylight in any way allows, attempts will naturally be made to attack the withdrawing enemy in flank, and to carry disorder into his columns. As soon, however, as darkness falls and puts an end to the fighting, the march should be continued on parallel lines throughout the whole night, if possible in constant touch with the enemy, in order that he may again be attacked at dawn the next morning, or that his retreat may be barred at defiles or other favourable places. The trophies of pursuit will rarely fall into the hands of him who shrinks from spending the night after the battle marching, or neglects to prepare in every way for such an operation.

Direct frontal pursuit by the cavalry will generally yield but meagre results against the masses of the modern army and the firearm of the

present day. Only when completely demoralised troops are retreating in the open, and cannot be reached by fire, will a charge be feasible. Generally, however, the frontal cavalry pursuit will be soon brought to a standstill by the hostile occupation of localities, woods and the like. Frontal pursuit is essentially a matter for the infantry, who must press the retreating enemy to the utmost. On the other hand, it is of course the duty of the cavalry to maintain touch with the enemy under all circumstances. With this object in view it must continue the frontal pursuit, sometimes even without seeking to draw on a fight, by day and night. When the strength of the infantry fails, it is the imperative duty of the cavalry to continue to harass the foe. In conjunction with the artillery it should be able to inflict considerable losses on the opponent. In the face of modern conditions, however, too great results must not be expected from such action.

When the army cavalry undertakes a frontal pursuit, it will be advisable to divide it by brigades, to which must be allotted the various roads along which the enemy is retreating. To each column must be assigned artillery, to enable it to be continually at grips with the enemy. Cases may also occur where, if the enemy's lines of retreat are not too close together, it will be possible to penetrate between them, and thus strike all the terrors of a parallel pursuit to

the very heart of his army. The results that might thus be gained will justify great risks.

As to the covering of a retreat, I may draw attention to paragraph 518¹ of the new Regulations. All the essentials are here set forth in compressed form. Under such circumstances the cavalry must never renounce the offensive, as the maintenance of morale when things are going badly is imperative. Continual efforts must be made to confront the enemy, and to attack him whenever possible with the cold steel. Defensive fire tactics, however, will of course be employed whenever circumstances demand such action. Thus, when it becomes no longer possible to show a front to the pursuing cavalry in the open, measures must be taken to block the routes upon which his parallel pursuit is operating, by barricading roads and occupying important points and defiles, especially during the night, and thus to secure the retreat of the army. Detachments to which these duties are confided must be dispatched from the battle-field in good time, so that they may be able, if possible, to arrange

¹ "Should the issue of the battle prove unfavourable, the cavalry must strain every nerve to facilitate the *retreat* of the other arms. It is just in such cases that they must assume a relentless offensive. Repeated attacks on the flanks of the pursuing troops will produce the best results.

"Even temporary relief for the retreating infantry and a short gain in time may avert utter defeat. The cavalry which effects this, will, though it gains no victory, retain the honours of the day."

their defensive measures by daylight. The more obstinately they hold well-chosen points, even at the risk of being cut off and captured, the better will they have done their duty.

4. *The Rôle of the Divisional Cavalry*

The numerical weakness of the divisional cavalry, and the variety of duties that fall to its lot, considerably limit the development of its fighting power. It will scarcely ever be able to seek battle with the enemy's cavalry in an offensive sense, nor in defence will it possess the requisite numbers for an effective counter-stroke. It is therefore all the more important that such isolated favourable opportunities for the charge as some fortunate chance may place in its way should not be allowed to slip by. Every tactical success raises the self-confidence of the troops, and operates towards the attainment of moral superiority over the enemy, even though he may be numerically the stronger force.

In the battle of all arms, as soon as fighting contact has been established with the enemy, and the close and combat reconnaissance is thus probably at an end, the divisional cavalry must endeavour to gain touch with the army cavalry, in order to strengthen the latter for the battle. In so doing, it must not of course lose all connection with its own infantry division. When this cannot be done, and when no other chance

of mounted action offers, the divisional cavalry must seize the rifle and act as an immediate support for the infantry. Opportunities for such action will occur more especially in defence, as was proved by the cavalry of General Stuart.

After the battle it is the duty of the divisional cavalry to advance in frontal pursuit, even though no great results are to be expected from such action. During a retreat after the battle it will be continually in action as the rearmost detachment, and must endeavour to arrest the pursuit by occupying favourable positions with fire action. Frequent opportunities for a charge on a small scale may here occur.

Should the infantry division to which the cavalry belongs be operating independently without army cavalry, the divisional cavalry must act in accordance with the principles laid down for the army cavalry, as far as they apply and in so far as its strength and other circumstances will allow. Parallel pursuit may be possible under such conditions.

In retreat, every effort within the power of the cavalry must be made to protect the flanks of the retiring division, and to arrest the pursuer by sudden bursts of fire on every possible occasion.

There is for the divisional cavalry no such wide field of possibilities as is open to the army cavalry: it will be less often mentioned in dispatches. The tasks which fall to its share, how-

ever, are certainly immeasurably more arduous and call for greater sacrifices. It will often be confronted by the most important and dangerous duties, for the fulfilment of which its means are quite inadequate. Such duties can only be carried out if the troops are capable of the greatest efforts and determined to do great deeds, without the impulse that the prospect of distinction promotes.

VI. DEPTH AND ÉCHELON

It is an astonishing fact that the échelon, and especially the rearward échelon, should have won for itself an importance in our cavalry tactics which, in my opinion, is quite undeserved and contradictory to the essence of cavalry action. It is the more astounding when we consider that this principle of échelon formation is said to be based on the tactics of Frederick the Great, which have no connection whatever with the échelon in its present form.

Frederick the Great arranged his cavalry in two lines, and within these lines the tactical units were on the same line of front. Detachments destined to turn the enemy's flank were attached in column to the outer flank of the leading line. As far as I know, a mention of échelon can only be found in one place. In a sketch that accompanies one of the Regulations of July 25, 1744, a squadron of the second line is shown thrown forward at half the distance

between the lines and écheloned on the first line, with the obvious intention of securing the outer flank of the first line against local turning movements. Out of this one squadron the whole of our échelon system has grown. Here is the only justification for claiming that the échelon of the second line is of Frederician origin.

Nor, as far as I know, in the tactics of the Napoleonic cavalry is there any trace of échelon in the modern sense. We would do well to seek, in this period of experience in great cavalry battles, instruction for the conduct of cavalry against cavalry, and not to sacrifice its lessons for imaginary advantages.

According to all appearances, our modern échelon is but the offspring of peace requirements. The troops were required to be mobile and capable of manœuvre, and a division was required to perform the same stereotyped evolutions as a regiment or a brigade. In the division the échelon of brigades met this requirement admirably, favouring as it did the change to line, a manœuvre which, on its part, was well suited to the necessities of drill in a limited area, and was regarded as the *pièce de résistance* of all cavalry divisional manœuvres. Many a time have I assisted at these tactical orgies!

We must not neglect the warning that, even in manœuvres, as soon as there is any kind of approach to service conditions, such necessity for

change of front never—literally never—occurs. Besides this, the *échelon* formation has shown itself to be quite unpractical where any real tactical deployment is required off the drill-ground. The question, then, of the circumstances for which it is particularly designed does not appear as yet to have been definitely asked or answered. We have been content with general representations that it increased the power of *manceuvre*, and thus added to our beloved stereotyped formations.

For years I have striven to clear up these views and to establish their true worth. As long ago as 1903, in my book "*Cavalry in Future Wars*," I wrote as follows: ". . . It is obvious that the formations for approach and attack prescribed by the (old) Regulations are as unpromising of success as they well can be. While affording a possibility of quickly presenting the same formation in any direction, a feat of no possible advantage for war, they seriously impede any deployment to the front. If it is required to launch the first line against the enemy's flank because this is its shortest line, one at least of the following brigades will be masked, and will be hampered in its movements. If, again, it is desired to utilise one of the rear brigades for a flank movement or any similar purpose, the first line has to be checked until the others reach the required position, or else they will certainly arrive too late to co-operate. Furthermore, the formations advocated

render it more difficult to derive full benefit from the configuration of the ground."

These deductions have remained, up to now, uncontested. In spite of this, however, the new Regulations uphold the point of view of the old as regards échelon formation in every way, and even vest it with increased importance by confiding to the échelon the duties of the real second line, i.e. of the supporting squadrons of the old Regulations. In the regiment, as in the brigade, depth is to consist in échelon formation, and only exceptionally is a real second line to be formed. The échelons are not only to protect the flank of their own units, and turn against any portions of the enemy's line that may break through, but are also to turn the enemy's flanks (170 and 200).¹ In

¹ "As a rule, a single regiment attacks in line. It may, or may not, be in échelon. Only on exceptional occasions should one of the squadrons follow as a second line.

"The officer commanding will bring the directing squadron into the direction of the attack. The squadrons, each in close formation, must be led so as to ensure combined action.

"The échelons will envelop the hostile flank or ward off the enemy's flank attacks; they can also be used to prolong the front of the regiment, or they can turn against portions of the enemy which have broken through."

"When attacking *cavalry*, the regiments will, as a rule, be employed in a line formation side by side; this will prevent their personnel from becoming mixed up. The necessary depth will be supplied by the regiments themselves, and, in this case, it is usually in the form of échelons. *If the situation demands, even single squadrons can follow in column formation.*

"The employment of several lines may be useful on occasions when the situation demands rapid action from the leading regiment, and circumstances will not permit of the rear regiments taking ground to a flank."

the division, also, during the advance to attack cavalry, *échelon* formation will, "as a rule," be ordered. The transition formation thus remains with us not only in name, but in fact, only with the difference that brigades provide for their own depth and flank protection, thus, in fact, being again in themselves *écheloned* (223, 424, 425).¹ Only when a closer knowledge of the enemy is attained may the brigades come into the same alignment from the commencement, and assume the requisite frontage (426).²

¹ "When advancing to attack *cavalry*, the divisional commander will, as a rule, order the brigades into *échelon* formation. *Brigades will make independent arrangements as regards formation in depth and for flank protection.*

"As soon as the divisional commander has decided to attack, he will arrange for the employment of the artillery and machine-guns; he will give the brigades their attack orders; if necessary, he will give the directing brigade the line of attack; and he will detach his reserve.

"The further execution of the attack will rest with the brigade commanders."

"Collisions of cavalry partake usually of the nature of battles of encounter. In such cases, uncertainty as to the strength and intentions of the enemy renders necessary such *échelon* formations as will preserve freedom of action."

"*The form of the échelon* will vary according to the objective and to local conditions.

"Should no certain information as to the advance and formation of the enemy be forthcoming, a double *échelon* is possibly the best. But, should a flank rest on impassable, or on very open, country, which is, however, covered by the fire of friendly artillery, only single *échelon* is necessary. *Échelon* to the front may be rendered necessary by the advanced guard situation. The above cases are given merely as examples.

"As the situation is gradually cleared up, the flexibility of *échelon* formations renders it easy to attain the formation in which the attack will be delivered."

² "Should it be possible to ascertain the hostile dispositions with approximate certainty, the cavalry leader can have his front rank

In close connection with this modified transition formation, the "change to lines" has also been retained in fact, though no longer designated as such. That is to say, the possibility of a change of front "to the complete flank," i.e. at right angles to the direction of march, is still contemplated, (220),¹ and to this end a fresh formation of the division will generally be required, as well as a fresh directing brigade, which takes up the new line of march, and to which the remainder conform in the desired manner. It is apparently a matter of indifference whether the brigades are called lines or brigades. It is, and remains, a purely drill evolution of the division in close formation, a complete change of front to a flank, and is therefore something that would certainly not occur in war if any reasonable sort of information were to hand. If it did occur, it would presuppose the entire failure of reconnaissance and the corresponding incapacity of the leader.

My cavalry instinct forbids me to share the tactical principles that these views entail, and I will therefore again endeavour to make clear that conception of the matter which I hold to be correct.

units in line from the start, and deployed on the frontage upon which he intends to attack. The advantage thus gained, if combined with rapidity of movement, will often render it possible to deliver an enveloping attack during the hostile deployment."

¹ ". . . for greater changes of front, e.g. to the complete flank, it will generally be necessary to re-form the division."

First, as regards the demands of the Regulations that *échelon* is to replace depth. In my opinion, the conditions of reality have not in this matter been taken into account. To be able to meet a hostile squadron that has broken through the line, the *écheloned* squadron, if still in column, must wheel into line, or if, as is probable, already in line, must wheel, and then charge behind the front of its own attacking-line. I consider this, of itself, to be impracticable in the excitement of the fight, a manœuvre that can only be carried out on the drill-ground. We have only to consult any one who has had experience of a cavalry attack to learn how difficult it is to perform such evolutions immediately before the charge.

Then, again, what is our conception of such a hostile squadron breaking through? It may be expected to be accompanied by a simultaneous rearward movement of a corresponding portion of our own line, so that no clear objective for attack from the flank would be likely to offer itself. Such retirements of single portions of the line can only be met and counteracted by throwing in fresh forces from the rear; such has always been the experience in cavalry fights, as far as the teachings of history show.

But there are other matters for consideration. How can the squadron, *écheloned*, for instance, on the *outer* flank of a brigade, intervene when this so-called rupture of the line takes place on

the *inner* flank? In the dust and excitement of a cavalry fight, will such a rupture, especially in undulating country, be even noticed? What if there is a simultaneous threatening of the other flank, which the échelon is obliged to meet? What if the échelon has advanced in an enveloping movement? Who is then to deal with the rupture of the line?

To go on trying to prove that the duties devolving on depth and échelon cannot be met by one and the same detachment, is like carrying coals to Newcastle. The formation of a second line in the fight against cavalry, regarded as exceptional by the Regulations, should be made an *invariable rule*, from which departure is allowed only in exceptional cases, while safety for the flanks must be arranged for *independently* of this.

Here again we come into collision with paragraph 170 of the Regulations, which lays down that an offensive flank attack may be undertaken from a rearward échelon; as if such a manœuvre could possibly be carried out! Detachments which are to turn the enemy's flank must, during the approach, advance into alignment with their own line separated from its flank by the necessary interval, or else must be *écheloned forwards* from the commencement.

Forward échelon will generally be found to correspond with the offensive spirit of cavalry

better than the more defensive rearward échelon. It is usually more practical and protects the flank better, while at the same time threatening the enemy's flank and laying down the law to him. Forward échelon is a very useful tactical cavalry formation, and deserves more attention than the Regulations bestow upon it.¹

On its offensive importance I need scarcely enlarge. Troops in forward échelon are already in a position which can only be reached after an exhausting gallop by those in rearward échelon, the position prescribed by the Regulations. They will be in a position to frustrate any offensive intentions of the hostile reserves, and will obtain quicker and surer information as to the enemy than will ever be possible at such a time by patrols alone. That they may at times come in contact with hostile troops in rearward échelon is obvious. If the flank of these cannot be turned, they must be dealt with frontally. Local dispositions and a vanguard must provide security against the action of hostile reserves.

Even in a *defensive* sense the forward échelon will often be more useful than the rearward. The latter formation surrenders the initiative to the enemy, and confines itself to *parrying* attacks, always a disadvantage in a cavalry fight. Forward échelon, on the contrary, seeks to forestall

¹ "Échelon to the front may be rendered necessary by the advanced guard situation."

the enemy in the offence. As to how it may often be better adapted to warding off hostile attacks than the rearward échelon, I will give an example.

A body of cavalry, in the approach formation, is advancing against the enemy, with blind ground on a flank, which would allow of the enemy's covered approach, and which perhaps it has been impossible to reconnoitre. Attack or fire surprise is feared from this quarter. How will the cavalry protect itself? The modern tactician would in most cases reply: "By an échelon to the rear." I do not think this would be suitable. How is such a formation to give safety from fire surprise, and to locate the enemy's advance and arrest it until the main body can take counter-measures? The forward échelon can here alone avail. It comes to close quarters with the enemy, attacks him before he can reach the flank of the main body, and thus gains time for defensive measures or retirement.

It is quite obvious that the cases for employment of the forward échelon do not allow of being formulated. I think, however, that we should make much more use of this formation than is at present the fashion. Properly applied, such methods will ensure to us considerable superiority over our opponents.

If we turn from this narrower tactical point of view to the formations on a large scale where

échelon is to be found—namely, the divisions—here too the examination leads to no more favourable conclusions. I ask myself, when and under what circumstances will such a formation be advisable?

During the approach to the battle of encounter it is, as I have endeavoured to prove, quite superfluous, and may even operate to our disadvantage. In this case, when total uncertainty reigns as to whether the combat will be carried out mounted or dismounted, or both, there can be no question of any stereotyped tactical formation, either of units as a whole or of smaller bodies within them. Here, as we have seen, the battle will generally develop gradually, and the fighting-line be fed from depth, until the necessary information as to the enemy has been gained and the decisive attack can be embarked upon. Under such circumstances the brigades advance according to the tasks allotted them, and make their dispositions as circumstances dictate. The depth that will be necessary can obviously not be laid down, and can be attained by échelon neither in the division nor in its subdivisions. If the division should advance under such circumstances in close formation écheloned within itself, the unnecessary danger would be run of offering an ideal target to the enemy's artillery (which must always be taken into consideration), and at the same time of hamper-

ing movement where circumstances demand the greatest freedom in all directions.

If, on the other hand, the enemy's dispositions are known before a collision occurs, the Regulations themselves (426, see p. 224) allow that échelon formation is superfluous, and that the advance may be made in the deployed formation desired, brigades being on the same frontage, if the country and the character of the adversary offer the probability of a charge.

And will it be different in the battle of all arms? In that case, if the army cavalry advances from the wing of the army with the intention of attacking the enemy's flank, what need will it have of échelon formations? It is known that an attack must be made under any circumstances. Further information as to the comparative strength of the enemy cannot and must not be waited for. All available forces will be engaged in order to wrest a victory, and must from the beginning be so disposed that the enemy will be compelled as far as possible to conform to our movements, and that we may prepare the most favourable deployment for attack in the manner discussed above. Must we, then, advance with the division in close formation écheloned within itself, in order to afford the greatest possible target for the enemy's artillery? Are we to choose the pusillanimous formation of the defensive échelon, that we may perhaps be obliged to approach and to deploy under the

enemy's eyes, incapable in this unwieldly formation of turning the ground to account? I cannot think that this is practical and believe that modern artillery fire of itself suffices to make the écheloned division an impossibility and to banish it for ever from the battle-field.

It must be added that should the unexpected appearance of the enemy on a flank make it necessary, *rearward* échelon is much easier to assume from a formation of brigades on the same front than is the line or attack formation from rearward échelon. It is only necessary for that part of the line which is to be écheloned to halt or decrease the pace, and the échelon is soon formed. To push forward units from depth while on the move means, on the other hand, a considerable and indeed unnecessary expenditure of force.

VII. FORMATIONS FOR MOVEMENT

As the brigades in a modern division must, on account of the effect of artillery fire, be disposed according to completely different principles from those of the past, so, too, must the formations adopted by the various groups be chosen to suit modern conditions.

Our new Regulations lay down that, if the cavalry, after its preliminary deployment, has to cross an extensive fire-zone, the subordinate leaders are to choose such formations for their

units as will minimise the effect of the hostile fire, and that, for this purpose, the configuration of the ground must be turned to the best advantage, even though it should involve temporary departure from prescribed intervals.

I do not consider these instructions, which, in contradiction to the general principles of the Regulations, give free play to the initiative of all subordinate leaders, are sufficiently definite. They appear to try to avoid giving a distinct designation to this manner of advance. Before the publication of the Regulations it was known as "extended formation." As such I have characterised it in my brochure "Reflections on the New Cavalry Regulations," published in 1908, and it is to be regretted that this title was not maintained in the Regulations, and with it also the real essence of the whole formation. This would, I think, have made the matter clearer. I hold it to be of great importance that the adoption of such formations should be ordered by higher authority, as otherwise there must be a danger of the troops getting out of hand.

In adopting these extensions it is not only a question of ground actually under artillery fire, but also of areas during the crossing of which fire may be expected, to which, of course, the troops should not be exposed. Whether such is the case or not, the cavalry commander, who is observing and receiving intelligence as the troops hurry for-

ward, is alone in a position to judge, and not each subordinate leader. For this reason alone, unity of action is absolutely necessary. So is it also from another point of view. I need scarcely enlarge on the picture of what would occur if each subordinate commander, each squadron leader, according to his individual judgment, were to suddenly regulate the pace and formation of his own volition, while it would be a matter of difficulty to maintain proper control of the troops if it were left to the squadron leaders to regain alignment in their own time.

It is therefore imperative, to my mind, that such extensions should not be left to the discretion of the squadron leader, but ordered by superior authority. Instructions as to pace should be given at the same time, and the area indicated where troops are to regain the formation ordered and decrease the pace. These are points that have escaped the notice of the Regulations. Orders must also be given as to whether several lines will eventually be formed. These will then generally have to follow each other at shrapnel distance. Only the choice of formation and line of advance must be left to the subordinate leaders, as they alone are in a position to judge of the local effect of the hostile fire.

If such dispositions are to be made, all commanders, down to squadron leaders, must be instructed in time, so that they may have

already adopted the necessary formation on reaching the dangerous zone. They must at the same time be informed, in so far as can be ascertained, from which direction artillery fire—for this alone can be in question—is to be expected.

Should the artillery fire come from the front, column of route will often be a suitable formation. It affords but a small frontage of target, and facilitates use of the ground. If the artillery fire is expected from a flank, the adoption of a single-rank line will often commend itself. In any case, in the larger formations, distances and intervals must be adjusted so that one and the same burst of shrapnel will not strike two squadrons at once.

As the Regulations do not touch on these points, I do not see how a proper understanding of them can be awakened and cultivated in the troops, imperative though this may be.

As a rule it will be by no means sufficient to adopt formations for minimising the effect of artillery fire only in special cases where such fire is to be expected. The great range of modern guns, and their capabilities of indirect fire induced by improved means of observation, and the possibility of bringing fire to bear on large unseen targets with the aid of the map, make it absolutely necessary, when entering within possible effective range of artillery, to adopt formations which will offer no favourable

mark. If this tends on the one hand, as already remarked, to a premature deployment, it forces us, on the other, to adopt formations which can cross country easily and afford no easy target for the artillery.

I have already shown in a former work¹ how well the double column² answers this purpose, and in what a comprehensive manner the principle of independent squadron columns allows of elaboration, to procure for the cavalry the greatest imaginable freedom of movement.

The Regulations do not agree with these views. They hold fast to the principle that deployment must always be in line, and not in a succession of lines, and that before this deployment the squadron columns hitherto employed will generally be replaced by some other formation.

The above remain the chief formations for movement and deployment of the cavalry. The employment of the "regimental mass and brigade mass"³ has been limited, but the Regulations give us nothing in their place. Nor, on the other hand, is the flexibility of the double column particularly emphasised; its use, indeed, is in a certain sense limited. I see such

¹ "Reflections on the New Cavalry Regulations."

² Two squadrons abreast in squadron-column at six paces' interval, followed by two more at troop-frontage distance. When there is a fifth squadron, it follows in the same formation in rear of the left.—
TRANS.

³ "Regiments- und Brigadokolonnen."

limitation in the fact that the trumpet-call "*Double column!*" has been abolished. As, on the other hand, the call "*Form regimental mass!*" has been retained, it does not appear as if the use of double column is to be further developed, or allowed to replace the regimental and brigade mass on the field of battle.

It is further laid down that the regimental mass is to be used when beyond the range of the enemy's fire, the brigade mass when concealed by the ground, even on the battle-field. A deployment is even allowed for from the brigade in mass towards the flank, and that by a wheel of the head of the columns. - This presupposes that such a column can be used in a flank movement, which I regard as an impossibility. A deployment from regimental mass to squadron columns is also provided for. In view of the great effective range of the modern gun, I cannot think that movements in such close formation right up to the moment of deployment can go unpunished upon a modern battle-field.

All these instructions contained in the Regulations, and many others that take effect in the same sense, cannot be regarded as practical. They lead us to fear that the regimental and brigade masses, in spite of all modern conditions, will retain more or less their old importance. They will serve as a pretext for many a hidebound drill

enthusiast, of which, alas! there are still many among us. Upon the battle-fields of the future, however, we will no longer dare to appear in such formations, but only widely deployed and in thin columns, in such dispositions indeed as will allow of a rapid adoption of the attack formation, such as we have discussed in detail above. I can only hope that these views will, in the not too far distant future, come to be more generally recognised and will find their way into the Regulations.

Finally, I would once again draw attention to the idea of the "vanguard."¹ It receives but a passing mention in the Regulations, and no explanation of what is thereby meant. My opinion is that it is indispensable to all flank movements, and must *continually* be used, especially in the offensive. It should therefore be provided for by regulation in all deployments, and the troops should be fully conversant with its use.

For the rest, the present Regulations, in spite of all actual progress made, can only be designated as provisional, and give rise to the hope that it will be found possible to re-edit them soon, above all as regards the stereotyped parts, so that, fully prepared and up to date, we may go forth with confidence to meet the events of any future war.

¹ "Tefenschutz."

VIII. THE VARIOUS UNITS IN THE FIGHT

Having in the last chapter endeavoured to elaborate tactical principles, and to give practical hints, I will now shortly deal with the duties of the various units, and endeavour to form an impression of the performances that may be expected of them in the fight.

When a *squadron*, acting independently in reconnaissance, as advanced guard, flank guard, or divisional cavalry, finds itself obliged to attack, it will, as a rule, employ its whole force simultaneously, whether it charges in line, knee to knee, or uses a troop in single rank as first line. If a troop has been thrown forward as advanced guard, it must quickly clear the front, and endeavour to join the squadron, so as to strengthen it before the collision, and not to become prematurely involved in a disadvantageous fight.

The squadron is generally too weak to carry out an offensive fight on foot. There is also no means of guarding the led horses but by patrols. If they should become isolated during the attack, there will be a danger of losing them, especially in hostile country. A squadron must therefore only determine on a dismounted attack when such action is absolutely unavoidable. For dispersing hostile patrols or armed inhabitants, about a troop dismounted will generally suffice,

where there is no opportunity of surprising them in the charge, or of enveloping them. A defensive fight on foot must not be undertaken by a single squadron unless absolutely necessary, or when the led horses can be disposed in a safe place in the immediate neighbourhood, where the flanks cannot be turned, or where the arrival of reinforcements can be relied upon.

A squadron attacking knee to knee is stronger than a numerically superior enemy who charges in looser formation and is not armed with the lance.

The *regiment* of four or five squadrons is numerically too weak a body to be able of itself to carry out the larger strategical missions. It will therefore operate in more or less close co-operation with other troops, and will seldom be called upon to fight independently. It may, however, find itself for a time obliged to rely upon its own fighting strength, whether acting as divisional cavalry, as advanced guard, or as a detachment from a larger force of cavalry.

If a fight is in immediate prospect, column of troops must first be formed from column of route, and a broader front, which will allow of a rapid assumption of the attack formation, must then be adopted according to the ground.

In the charge against cavalry the regiment should only on rare occasions deploy all its squadrons into line, but must, whenever practic-

able, detail one squadron to follow in second line, and another in forward échelon, to protect the more exposed flank and to turn that of the enemy.

It will also be possible for the regiment to operate dismounted against weaker hostile detachments. If relative strength allows, at least a squadron should be detached to guard the led horses and to carry out reconnaissance duties. In the defence on foot, with ample ammunition and every available rifle in the firing-line, the regiment represents a formidable fighting force, even when obliged to detach one, or even two, squadrons, for reconnaissance and for the protection of the flanks and the led horses.

In the fight of smaller bodies of all arms, a regiment will frequently be able to intervene in a most effective manner by a timely charge, from which considerable results may often be expected, especially during pursuit of a retreating and shaken enemy. In such cases the formation of lines for attack will frequently be superfluous, and a broad enveloping formation may be adopted.

The *brigade* of two regiments is numerically too weak of itself to carry out strategical missions, and to be able to engage in the independent actions they demand. The heavy drains on its strength which such missions generally entail will usually weaken the fighting power so much that the brigade will no longer be in a condition

to engage an opponent of any strength who may have to be dealt with by mounted or dismounted action, or the two in combination.

At the same time, circumstances may lead to a brigade being *forced* to carry out an independent rôle. It will then have to reconnoitre with great care, so that it may only embark on a decisive encounter with a full knowledge of the situation. Otherwise, in view of its small offensive power, it will run a great risk of suffering defeat, especially when dismounted.

In the defence on foot, on the other hand, a brigade may be regarded as an important factor of strength, capable of successfully resisting an enemy of considerable superiority, as long as its flanks are protected and the led horses do not require too large an escort.

On approaching the enemy, the brigade must form column of troops from column of route in good time and the regiments must be deployed on the frontage and in the formations demanded by the situation. In such cases a reserve must always be detailed. The allotment of different rôles in the fight to the various regiments or groups will form the framework for the tactical deployment. In all attacks the brigade or its component parts must always adopt the formation in lines. Where there is blind ground to a flank, a forward échelon must be formed which will co-operate concentrically in the charge. In the

attack on foot, too, it will often be advantageous to échelon detachments forward under due protection, in order to envelop the enemy's position.

In the combat of detachments of all arms, and especially in pursuit, considerable performances must be expected of a brigade. A timely charge or the employment of its fire power in an effective direction may bring about a decision.

The *division* of six regiments, under circumstances where its full strength can be employed in the charge, represents, even against troops using the rifle, a very considerable fighting power, which can, if judiciously handled and launched at the right moment, have a decisive effect, even in a battle of armies.

In independent missions it must be remembered that a complete regiment of four squadrons with 15 files per troop will represent 400 rifles at most. In war, however, this figure will never be reached. Wastage on the march and the provision of the necessary detachments and patrols, weaken squadrons very considerably. We must further remember that in every great battle a mounted reserve will always have to be detailed, while, in addition to this, detachments such as reconnoitring squadrons, escorts to transport, reporting centres, and signal stations, will generally fail to rejoin in time for the battle. Thus the

division will seldom actually be able to reckon on more than 1,000 to 1,500 rifles in the firing-line.

Even counting on the co-operation of artillery and machine-guns, which the enemy will also have at his disposal, this represents no great offensive strength. It is therefore necessary to be quite clear in our minds that only weak detachments can be attacked with prospect of success.

A cavalry division is greatly handicapped by these circumstances in carrying out the rôle which may be assigned to it in the course of operations. The resistance of a body of equal strength where circumstances demand a dismounted attack can thus never be overcome.

Mounted, however, it is quite another matter. A well-trained German cavalry division, handled according to sound tactical principles and schooled to charge in close formation, may attack even a stronger enemy regardless of consequences.

Should the task at issue demand a larger force, several divisions must be united in a *cavalry corps*. In the battle of all arms such a corps, either by the charge or by employment of its fire power, may aim at decisive results. For the conduct of independent strategic missions fire power is an important factor. As in this case the number of men detached, etc., will be divided between the divisions, a strength of 3,500

rifles can at times be reached in a corps of two divisions.

For the division, as for the corps, the framework of the tactical deployment depends upon the commander's tactical plan, so too does the allotment of duties in the fight to the various units, divisions, brigades, and regiments, or to the tactical groups, advanced guard, main body, reserve, etc., and any attempt at retaining the command in one hand is obviously out of the question. Stress has already been laid on the necessity for early deployment, and once this is effected, the various subdivisions of the force must take their own independent measures for carrying out the rôles that devolve upon them.

On the other hand, neither in the fight of the independent cavalry nor in the great battle should a unit be allowed to become isolated in the combat. The necessary combination must always be preserved. United action, however, is only possible if subordinate leaders never lose sight of the general purpose of the fight, and continually bear in mind the necessary interchangeable relations of the various tactical methods.

In war it will seldom be possible either to undertake or to carry out the very best course of action, but will generally be unnecessary, for we may certainly count on numerous errors and vacillations on the part of the enemy, especially in the case of cavalry warfare.

It is of far greater importance that any plan once undertaken should be energetically carried through to a conclusion.

Success in war is first and foremost a matter of character and will. The indomitable will to conquer carries with it a considerable guarantee of success.

The determination to win, cost what it may, is therefore the first and greatest quality required of a cavalry leader—and the offensive is the weapon with which he can best enforce his will.

Second Part

THE TRAINING OF CAVALRY IN PEACE

THE principles which I have endeavoured to develop in the last chapter afford, in my opinion, sufficient foundation upon which to build up a system of peace training; for, the the closer this approximates to war conditions and the more thoroughly it prepares for war, the better will it fulfil its object.

This point of view is apparently an obvious one; but attention has to be continually drawn to it, as the usages of peace time have a habit of pushing themselves more and more into prominence, until they assume the appearance of war conditions, and begin to be regarded as such.

There is, of course, a wide divergence of opinion as to what is suitable for war, and war itself can alone decide which conception is the true one. At the same time, certain assistance can be drawn from a close study of military history and from peace exercises carried out

according to the fundamental principles of war. That for which a use can never be found on the manœuvre-ground, or that which never proves its desirability or utility there, may be reasonably discarded as unsuitable for war.

Regarded from this point of view, our present Regulations contain many instructions that appear to be adapted only to drill-grounds, large and small, and I cannot bring myself to recognise them as adequately fulfilling the demands of war conditions. They belong still to the equipment of the past, and I would have wished not to have met them again—at all events, not in the Regulations. For the needs of war are so real, so unmistakable, and so great, that to adequately fulfil them will claim the whole of the time available for training, and there will be no kind of leisure to teach the troops things which will scarcely find application in war, and which must, under certain circumstances, tend to confuse their judgment.

It need scarcely be emphasised that the training of troops according to war conditions, if it is to stand the test of war, must be based in a uniform individual training of man and horse. The individual efficiency of man and horse, necessary as it was in the past, is doubly so in these days, when the rôle of cavalry no longer finds its chief expression essentially in the battle of masses, but rather in the duties of reconnais-

sance, patrols, the service of reporting, and the divisional cavalry, in all of which the independent action of every man as a dismounted rifleman is required.

Individual training has therefore a double object. Firstly, the horses must be so trained that they will cross country quietly, surely, and easily, with full marching kit, singly, or in close order; they must be obedient and tractable; and they must remain under complete control of the rider, even in the most difficult country, at the fastest pace, and in single combat. Secondly, the men must not only acquire the knowledge and readiness necessary for the performance of their duties, but must be formed into bold, determined, and reliable soldiers, who can think for themselves and appreciate circumstances. To hold his own in war the cavalryman must be inspired by devotion, daring, and the spirit of enterprise, and be possessed with the determination to conquer the enemy whenever met with.

One of the most powerful auxiliaries to such a training is horsemanship. It steels the character and promotes presence of mind and resolution. Great stress should therefore be laid upon making the men into bold horsemen. No opportunity should be missed of furthering this end and of inculcating self-confidence and independence in the saddle, so that men will be able to make

full use of their weapons without interfering with their horses or losing control over them. In the same manner the soldier must be trained in musketry. He must have that complete confidence in his weapon which can only be acquired by the good shot. Rifle in hand, he must feel himself superior to any adversary, and, even in moments of the greatest danger, retain his presence of mind and his will to conquer.

To attain such results, not only must manly self-reliance be instilled into the hearts of the men, but they must be supported by discipline, which alone can make them into soldiers. Not that dead discipline inculcated by drill, which results in the performance of duty unconsciously and by habit, but a living discipline to which the men submit with full confidence in the excellence of the Regulations and the superiority of their officers; which allows a man to be proud to be a soldier, and to do his duty under all circumstances without superintendence, even when left alone with his task; the discipline which ensures the straining of every nerve in the cause of duty, and expects faithfulness, even unto death.

To promote these qualities in men and troops—for the latter have their own moral existence—must be the main object of all peace exercises. Above all must the spirit be kept superior to the form. Exercises should never be allowed to

lapse into routine, but continual attention must be paid to the individuality of man and horse, and to the full development of their capabilities.

Especial care is necessary in the selection and training of all superiors. The good training of troops in peace depends upon them and the spirit with which they are inspired. In war, moreover, the performances of the troops are first and foremost dependent on the manner in which they are led. It must therefore be earnestly urged that all leaders thoroughly master not only the letter, but the spirit of the duties they have to carry out, so that they may be capable of independent action in accordance with the intentions of the higher leading when definite instructions and orders fail to reach them. Success in battle, as in field-training, depends to a considerable degree upon the initiative of subordinate leaders. The officer should also cultivate certain personal human relations with his men, for these form the strongest weapon of discipline, and one which will not fail at the most critical times. Such personal relations also form, as experience has always shown, the best means of furthering training.

- In this spirit must instruction progress in logical sequence from the easy to the more difficult without lapses into pedantry. It will follow its successive stages right up to the training of division and corps. Yet the perfection of the individual training must never be lost sight

of, even during the exercises of these larger formations.

Especial importance must therefore be attached to the training of remount and recruit. Faulty and incomplete instruction in these early days will show its ill-effects throughout the whole period of service. Faults that creep in during this period can seldom be completely eradicated, still less is it possible to compensate for them by collective training. Throughout the whole period of service, therefore, continual search must be made for any such faults, in order that they may be corrected before it is too late. The view that the period of individual training ceases with the end of the winter months must be abandoned. The young horses especially must continue their training according to the stage of proficiency reached.

The training of man and horse must progress simultaneously, the one supplementing the other. Similarly, too, the training in riding and in musketry should go hand in hand and receive equal attention from the commencement.

For the rest, the importance attached to the various branches of training, and the time devoted to them, should be measured according to their actual value in war.

In tactical training it should never be lost sight of that in modern war the chief duty of cavalry will consist of reconnaissance and screening; that the cavalry fight, in by far the greater number

of cases, is not only a means towards the destruction of the enemy, but has also another and distinct object, that of observing and reporting the enemy's dispositions and movements. Every endeavour must therefore be made towards turning the cavalry into good reconnoitring troops which will not fail, even in the most difficult situation, to keep the Head Quarters supplied with information.

For the same reason it is recommended that the drill period be not too sharply divided from the field-training period, as is, unfortunately, too often the case. It is still the custom for the squadron leader to go on leave during the important part of field-training. This is quite wrong, as drill is much easier to teach than field-training. Field-training and drill must go hand in hand, drill and field-training days being interchangeable wherever practicable. Such procedure also helps to keep the horses fit, affording, as it does, an opportunity for recovery from lesser injuries received in field-training.

Finally, I should like to utter a warning against endeavouring to keep troops up to the same standard of war training throughout the year. There are still senior officers who are not content unless field-training begins again immediately after manœuvres and cavalry are detailed to assist at all sorts of infantry exercises, thus often imbibing quite false notions of war. Nothing does

so much harm to cavalry training as proceedings of this kind.

The troops should certainly not go to sleep in winter. After a certain period of rest it is absolutely necessary that the cavalry be allowed some time that can be devoted entirely to individual training, and during which nothing else is undertaken, while the horses are given an opportunity of recovering from the fatigues of the summer. This is the period from the date of joining of the recruits until about the middle or end of January. During this period are laid the foundations of an efficient cavalry. If the instruction in riding is continually interrupted during these months the training of the horses must eventually suffer lamentably.

Later on in the winter, practice in patrol work, and even a few field exercises on a larger scale, will be less harmful, as the older horses should by then have regained their condition. But field-training must on no account be over-done during the winter, for it must always be borne in mind that good horsemanship is the necessary preliminary to all other cavalry work.

As regards the various branches of training, I am of course conscious that there is not much to say that is new on the subject, and that, having already discussed many of the essentials in earlier works, it will be difficult to avoid repetition.

If, in spite of this, I deal more closely with this subject, I do so with a distinct object in view.

I will endeavour, in accordance with the demands of modern war, to give a short survey of the course of practical training in the cavalry, and at the same time to discuss certain important questions which do not seem to have received sufficient attention in the arm. I hope thereby to do something towards bringing about a uniformity of the principles of training in the cavalry. It is not the intention to limit the initiative of the various commanders; that will find ample scope in the individual dealings with man and horse, in individual arrangements of duties, and in the spirit in which these matters are carried out. I should, however, like to do something towards rendering the same general principles uniform and the same instructions everywhere effective. In the different regiments of our army, horsemanship and field-training stand on entirely different planes. In drill, too, there are wide differences in the demands made on the troops, and in the method of their fulfilment, the latter being often very indifferent.

If we are to expect great performances from the arm in war, and if we are going to depend upon it, every part must be of uniform value, trained in one school of thought towards a single end.

I have therefore been, and still am, of the opinion that it would be advisable to add to the Regulations a special chapter containing a number of fundamental instructions for training, and not, as has unfortunately again been done, to put these instructions together with instructions for war in one volume, which is intended to determine the methods of peace training. The separation of the manœuvre regulations from the "Field Service Manual" offers an instructive analogy. Nowhere is to be found in one place on the one hand what is required for war, and on the other what is required for peace. The instructions for peace training are defective and disconnected. Indeed the exigencies of peace training appear to have frequently influenced the framing of the instructions for war.

I hope that my work may assist in supplying this want of a single training-manual, which must be the more deeply felt, as even the various hand-books are no longer up to date. I also believe that my views will be welcome to those senior officers who are not cavalrymen, and will assist them in their appreciation of the arm and of its performances. At the same time, I hope they will serve to lead the various training theorists into the right way, and, far from limiting proper initiative, tend solely towards ensuring a uniformity in training. A wide field of action is here opened for the Inspector-General of Cavalry.

A. INDIVIDUAL TRAINING AND TRAINING
IN SQUADS¹

1. *Training of the Horse*

The breaking and training of the horse still officially follows the standards of the "Reit-Instruktion." It is, however, no longer possible to adhere to these instructions in every particular. Owing to the better bred and generally improved class of remount nowadays obtainable, the period of training can be considerably curtailed, while, on the other hand, a higher standard of training may be demanded of the horse. Even if the principles of the "Reit-Instruktion" are applicable in general, the book is so clumsy, pedantic, and unpractical, that, from the point of view of the training of horses alone, a revision of the work is urgently required. Such instructions should be written in a manner so generally comprehensible, and be considered so practical, that every young officer will take them daily in his hand and use them for guidance, while the under-officers should also be able to understand and make use of them.

Such is not the case with our present "Reit-Instruktion." I do not think there are many officers who have read it through. Its contents survive rather from being transmitted than from being studied and applied.

¹ Compare "Cavalry in Future Wars."

Having regard to the departures from the "Reit-Instruktion," rendered necessary by altered conditions, I think the course of training of the horse should be somewhat as follows.

As soon as the young remounts join¹, they should be put in work. It should be endeavoured, in the time between their distribution to squadrons, and the beginning of the period of winter training of the following year, to break them completely, so that, in the last winter before taking their places in the ranks, they require only to have their balance assured and their preliminary training perfected; and that the next winter at latest they may reach the summit of their training in Section IIb. Great care must be taken to prevent single, especially backward, horses remaining behind the rest in this preliminary stage, though in the case of horses of difficult temperament or faulty structure this will sometimes be unavoidable.

Such remounts, which are thus imperfectly trained or balanced, should on no account take their place in the ranks, but must be further trained by good horsemen, even throughout summer. The disadvantage of drilling with a few files short is not so great as that which accrues to the squadron if a remount is backward in its training, or becomes assured in its faults. Such faults can never be quite corrected, and the horse

¹ About the beginning of October.

remains a burden to the squadron, and cannot be used for the training of recruits in riding. Good and accurate drill, too, is only possible with thoroughly trained horses.

This principle, *that only thoroughly trained horses may be placed in the ranks*, must, to my thinking, be carried out quite unconditionally. It forms the necessary foundation upon which alone we can build with success.

The essence of the training is to continually improve upon the individual training of the horse. Efficiency in the squad must be the result of good individual training. Even after the conclusion of the course this must be remembered, and continual care taken to check any inclination to tricks, excitability, or stubbornness that may show itself. Exercises in independent riding and leaving the ranks should therefore be frequently repeated; it is thus that the existence of any faults of breaking can best be detected, for it is only a thoroughly trained horse that will submit himself completely to the rider's will. Lance exercises mounted should also be carried out daily in winter, either before or after the ride, chiefly in order that the young horses may become accustomed to these weapons.

It is of especial importance to endeavour to promote all the horses of Class IIb in the following year to Section IIa while the recruits' horses

will be perennially supplied from the animals that up to then belonged to the latter section. Only in this manner is it possible to ensure a continual supply of fresh, pliable horses for recruits, and it is only upon such horses that men can be taught to ride well. Not always, however, can these desirable conditions be realised. There will be horses which, from faults of structure, temperament, or the like, can never be placed in Section IIa. This must not prevent us from carrying out the principle as far as lies in our power. We must abjure the habit of only placing in Section IIa the best trained and most comfortable horses irrespective of their age. This reacts upon the recruits, and consequently on the efficiency of the squadron.

The horses taken away from recruits' rides will then come into Section IIId, while in Section IIc will be found the rest of the old horses and those that require a refresher course of training under experienced horsemen. Difficult horses must, as I have already said, be taken in hand throughout the whole summer. Only the squadron leader who keeps individual training in view throughout the entire year will be able to bring his squadron to a high state of efficiency.

Generally speaking, the actual breaking in of the horse should be completed by the end of February or the beginning of March, according to climate. From this period onwards it is desirable

that the horses should be exclusively prepared for the part they have to play in the service, and trained to go in the ranks and to adopt the regulation paces. The drill gallop may thus be gradually developed. The horses must acquire the habit of going in the ranks properly balanced, without fighting against the bit. This is of the utmost importance for all drill. Only a squadron in which no horses are rushing, but all go freely, with heads bent and backs arched, can remain continually under the full control of its leader.

At this period must be practised the picking up and maintaining of a given direction, the passage of natural obstacles, and the increased and extended gallop. Exercises at a rapid pace must, however, be undertaken with the greatest care. A horse should never be allowed to get out of hand, but must be collected, and not lean on the bit. Preliminary exercises in thrusting at marks with the lance may now be commenced. Any charging or rushing on the part of the horse at these exercises must be checked. It is also advisable to carry out this part of the training, where possible, across country, or on the drill-ground, or at least in open manèges.

Great importance must be attached to accustoming all horses (including remounts), as soon as they have reached a certain standard of training, to go across country as independently as possible—i.e. without appreciable assistance from the bridle

—and to gallop over various kinds of ground and surmount natural obstacles.

In these exercises more importance should be attached to scrambling than to jumping. Jumping, however, must also be diligently practised, especially over wet and dry ditches, as it is frequently necessary in the field.

2. *Equitation*

Instruction in equitation must be commenced as soon as the recruits join the squadron.¹

This branch of training must follow the provisions of the “Reit-Instruktion,” at all events as regards the commencement. These instructions, however, must be regarded as quite obsolete, and good training of recruits, such as is nowadays necessary, cannot possibly be expected if they are followed. This part of the training really, therefore, no longer follows any particular instructions, and discretion reigns supreme. One thing alone is certain, and that is, that much more can be expected than the Regulations prescribe, if there is a supply of fresh and well-trained horses for the recruits to ride.

This branch of the instruction needs regeneration before all else. The present system results in producing dull and unintelligent riders and stubborn horses, and does more harm than good. It requires fundamental alterations.

¹ 1st October.

Training begins on the saddle without stirrups, or upon numnahs fastened to the saddle-blanket. The gallop must be commenced a few days after the beginning of the course. As soon as the rider has acquired a certain firmness of seat, an endeavour must be made to make him apply the leg. The bending lesson is best adapted to this end. The men will, of course, be naturally unable to accomplish it at first, but it is recommended that the necessary instructions be given for the bending lesson as soon as they have grasped the idea of the use of the leg. The requisite feeling will then be experienced. Their self-confidence will also be increased if they are allowed to ride in the same manner as the older soldiers. With well-trained recruits' horses this can be quite easily done, as experience has proved, and accelerates instruction in a surprising manner. The collected paces, also, must be commenced as soon as possible, so that the recruits will come to recognise at an early stage the feeling of collected movement and of control over the horse's quarters. Rising in the stirrups and the change from one leg to the other must be frequently practised as soon as the young riders have been given stirrups. Jumping should be commenced early in the course. In order, however, that the men should attain the necessary confidence for this, they must be restricted to small obstacles during the whole of the recruits' course. All stiffness of seat is to be avoided,

The recruits must learn from the beginning to conform to the movements of the horse while jumping, to ease the weight on the quarters when taking-off and to sit down again gently on landing.

The whole training must be based upon the individual instruction of the young rider. The riding in the ranks should also be the result of good individual training. It is a wrong principle to allow recruits to ride continually in the open, although it is one that is frequently followed. It is rather advisable to keep them in the riding-school as much as possible, at all events in the first part of the course, and, if there should be a dearth of riding-schools, to allow Sections IIa and IIc to work at times in the open. Riding in the school, where the walls assist the still weak outer leg, and where the riding of the horse into the corners demands the use of the inner, tends to more rapid progress than riding in the open, although the latter develops the independence of the man. A judicious blending of the two would seem, therefore, to be indicated for the later periods of instruction in equitation. It may also be advisable under certain circumstances to allow the squads to work in the open for a part of the ride and in the school for the rest. In very cold weather the men will learn practically nothing in the open.

If the recruits' horses are reasonably good, the training on the bridoon can in this way be finished

by Christmas, and it should be feasible by this time to practise in rides the bending lesson at a trot, the collected paces and the reversed canter,¹ while independently the men should be able to ride their horses properly at any riding-school pace. I myself can lay down, as the outcome of experience, that such results may be attained without any insuperable difficulty. The rides should not, of course, last for more than three-quarters of an hour.

After Christmas the recruit rides should be given the bit. Efforts should be made to finish the actual training of the recruit, as of the remount, by the end of February or the beginning of March. By this time the same standard of school riding as of individual riding and jumping should be demanded of all squads. The horses and men should all be up to the same standard. I have, for instance, seen this uniform standard practically reached in the 10th and 11th Hussars. Such results can, therefore, be attained.

After the conclusion of this inspection, real military horsemanship must be proceeded with. All the men of the squadron must, to this end, be mounted upon the same horses which will have to carry them during the summer. Singly and in small squads, they will also be further trained in the regulation paces, as well as in the use of their weapons on horseback.

¹ "Kontergalopp," with the horse bent to the side opposite to the leading leg.

The greatest importance must be attached to keeping the horses properly balanced, and not allowing them to fight against the bit; in the gallop especially, the horse must be expected to move with his nose down and back arched, with a light feeling of the bridle. All the men must be made to recognise the correct "feeling." Turns must be made by the aid of balance, without assistance from the bridle. As I have already laid down in discussing the breaking of the horse, the fulfilment of these conditions forms the absolutely necessary basis for accurate drill in close formation. If the men are prepared in this way, a high standard of training in the squadron may be reached comparatively quickly—an economy of time which must act in favour of the rest of the training for the field.

One point more in relation to training in equitation. I have formerly, influenced perhaps by General von Krosigk, attached a certain amount of importance to the training on the bit. Experience has induced me completely to alter this view. The men must, of course, learn to ride with *one* hand—but with all four reins in that one hand. The bridoon assists to lighten the somewhat heavy handling (which, in the case of our soldiers, cannot always be avoided), and keeps the horse's mouth fresher. The men, too, do not become so heavy-handed when they frequently

have all four reins in one hand. Continual riding on the bit alone would very soon have a harmful effect upon the horse's suppleness.

3. *Training with the "Arme Blanche"*

This branch of training follows the instructions given in the "Vorschrift für die Waffenübungen der Kavallerie." But these instructions, also, are in urgent need of revision. They should be made simpler and more practical, and must keep the immediate object continually on view.

The drill laid down for the lance, for example, can only be regarded as an exercise to accustom the men to the weapon. No one could fight in this manner in war. How *this* is to be done, our men are not really taught; and yet the lance is the cavalryman's most important weapon. It should be put in the hand of the recruit, mounted and dismounted, as early as possible. It is to be recommended that the men carry their lances on all parades, and be given a few exercises with the lance before any other work, in order to strengthen the arm. Lengthy exercises with the lance induce fatigue without attaining the object of gradually strengthening the muscles of the arm and furthering efficiency in handling the weapon.

By a gradual advance, a thorough mastery of the lance on foot can be attained in the first winter of service. Mounted, only exercises pre-

liminary to the actual thrusts should be undertaken in the first winter. The perfecting of the men in thrusting at fixed marks and at a moving opponent can best be undertaken during the summer, so that the men may be already masters of their horses before they undertake these exercises. On the other hand, the older soldiers should be practised in the use of the lance throughout their whole service subsequent to the recruits' period. It must, however, be remembered that lance exercises mounted, and particularly single combat, can only be undertaken on thoroughly trained and reliable horses, as any less well-trained animal is rendered yet more difficult thereby.

The training in the use of the sword must be limited to the few exercises that are prescribed for it, but must not be wholly neglected. In a *mêlée* the man will often have to rely upon this weapon.

4. *Training in Musketry*

The recruit's training in musketry must begin immediately he joins. From the very commencement the importance that is attached to the rifle in war must be impressed on him. By a judicious conduct of this branch of instruction it will be easy to induce the men to take an interest and a pleasure in it.

Training with the rifle must be limited to its

use as a weapon. Besides the manual exercise necessary for guard mounting, loading and unloading must, above all, be frequently practised.

When the man has thus been taught to handle his rifle, an advance may be made to the real tactical training. The result to be aimed at is that the soldier should become an independently thinking and self-reliant rifleman. The determination of the soldier to hit the mark, and the faithful endeavour to do his best unobserved and unaided, are the essence of success in dismounted action. To this end, self-confidence, judgment, and boldness must be inculcated in the young rifleman, and must be continually strengthened throughout the course of his service.

In the first winter period it should be possible to train all recruits in dismounted work up to movements in troops. The individual man has first to learn the simplest ideas of the instructors, appreciating country and making use of the ground, seeing and recognising targets (training of the eye), judging distances, and setting sights. The practical training in these matters will progress the more rapidly, the sooner the recruits are taken out into the open.

When the recruit has attained the necessary standard in loading and aiming drill, this must be undertaken in the open against service targets. Rapid loading, quick and accurate setting of the sight, rapid and easy adoption of the firing

270 TRAINING OF CAVALRY IN PEACE

position, steady aiming and pulling the trigger, even against targets which are only visible for a short time, must be practised in all positions. It must be explained to the men what objects on the ground offer cover from view or cover from fire, and how they may be utilised as rests for the rifle.

Picking up of targets and observing while lying down, must be especially practised. To this end the varying degrees of visibility of targets, according to the colour of clothing in relation to background and light, must be explained. This can be done by placing an enemy in various positions, and the men can be taught at the same time the difference between attack and defence and the peculiarities of the two. The man must be taught how he can creep forward towards the enemy. He must be able, by a proper use of the smallest declivities of the ground and of cover, to work his way forward bending or creeping as invisible as possible, even in open country.

Training for the firing-line must be prepared for in files and groups. Here must be taught the various methods of skirmishing, rallying, movements at close and extended intervals, the advance by rushes or by creeping, taking up a position, loading in all positions and when on the move, aiming with various sights in all positions and from behind cover, methods of fire, ceasing

fire, *passing orders*, and recognising the various signs and signals.

During the training in groups and larger detachments the exercises must take place primarily in the open. The essence of the actual dismounted fight can at first be best explained by using small squads of trained men for demonstration purposes. When the recruit then takes his place in the firing-line he learns to take heed to his neighbour and to keep his leader continually in sight. He must also understand how to cross all possible kinds of obstacles.

The men must also be taught to recognise and independently to adapt themselves to conditions of the fight which demand an increase in the rate of fire, and therefore preparation for a larger expenditure of ammunition. They must also be practised under conditions where fire direction fails, so that their independent action may be tested. They must be taught early how to conduct themselves of their own initiative in such cases.

Especial care is necessary in the training of subordinate leaders, and especially of group leaders. The latter must be practised in the use of the telescope, for picking up marks and for observation of fire effect, in rapid and accurate judging of medium ranges, as well as in words of command. It is especially important that they should understand how to explain clearly to the men the target and the portion of the target at

which they are to shoot. Points which lie beyond the target should never be given to mark those limits, but only those, if possible, which can be distinguished in the target itself. This is especially necessary in the case of an extensive firing-line, as points of direction which lie behind the opponent appear to be in a different position with relation to the enemy from every point of our own line. All subordinate leaders must carry out their duties in those positions, that is, standing or kneeling, which the fire of the enemy would render necessary in war. Stress must be laid upon this, as leaders naturally endeavour to raise themselves in the firing-line, in order to get a better view and better control of their command. When under fire, this is of course impossible, and orders could only be passed from man to man or be made known by the example of the leader. Besides all the under-officers, as many corporals as possible must be trained as group leaders. For this purpose the most capable of the recruits should be noted during their recruits period, and trained progressively in an especially thorough and comprehensive manner. They may be placed together after Christmas in one squad.

During the exercises by troops, the troop leaders should be assisted by two or three range estimators. Those men should be trained for this duty who have a talent for it. To attain a combination between range estimators and firing line

that would be serviceable in real war demands special practice.

All time spent in training in the open and in tactical exercises will, however, be thrown away if the men cannot shoot. This must be emphasised throughout the whole course. Where possible, musketry should be spread over the year, if circumstances do not demand that field-firing be held early in the season. With this exercise, musketry comes to an end. The number of cartridges allotted for these exercises is unfortunately, in my opinion, much too small. No real standard of tactical efficiency can be thereby attained.

Musketry should be carried out in general with great seriousness. In the cavalry, however, there is a want of well-trained instructors, and most regiments are even reduced to borrowing infantry under-officers and officers to assist in their musketry training, who are then also employed to teach the rudiments of the dismounted fight.

This is a state of things that cannot last, and every endeavour should be made to render the cavalry self-supporting in this direction. The smaller cavalry schools must make it their business to train junior officers as good musketry instructors, and at the field-officers' course in Han^{ov}er measures should be taken to ensure that those who are going to command regiments shall be given another opportunity of learning the

essentials of this branch of service thoroughly and in detail. If the course at the School of Musketry could be enlarged to take cavalry officers, it would soon form a sound means of spreading the right principles in the cavalry, which would communicate itself to the under-officers.

5. *Gymnastics, Foot-drill, and General Instruction*¹

The object of gymnastics is to make the men's bodies supple, to train the muscles, and to develop courage and self-reliance.

Foot-drill gives the man the necessary military bearing, and compels him to control his limbs properly, thus furthering discipline and the instruction in those movements which are necessary to him when dismounted for garrison duty and parades.

General instruction conveys to the man a knowledge of all the various matters necessary to the performance of his duty, and has, besides, the especially important object of furthering his intellectual and moral development, and improving his general education in national and military history, matters so necessary to the soldier.

The amount of time and trouble devoted to the various branches of instruction detailed above must be in accordance with their relative importance.

¹ "Dienstunterricht," literally "Service Instruction."

Physical training must progress continuously from the commencement of his service, as the bodily activity thereby cultivated is indispensable to the man, both mounted and dismounted. This training should follow the instructions in the "Turnvorschrift,"¹ but the men should be allowed to get on to voluntary exercises as soon as possible, as the deadly dull system of the prescribed exercises is calculated to deprive them of that pleasure and interest in the course, without which good results cannot be expected. Especial importance must be attached to vaulting exercises with the living horse—not only with the vaulting girth, but saddled and in full marching order. The rapid mounting and dismounting, so often necessary in war, can be considerably facilitated by these means. A new edition of the "Turnvorschrift" on these lines is urgently required.

Instruction in foot-drill should be limited to the attainment of the standard of proficiency absolutely necessary. It should, under all circumstances, end with squadron drill, and should only be practised in larger formations for ceremonial purposes. The latter should be limited to the minimum required for parade. Foot-drill should begin without arms. Side-arms must only be given to the recruits when they can assume the proper position, and can march and turn correctly. According to their indi-

¹ "Manual of Physical Training."

276 TRAINING OF CAVALRY IN PEACE

vidual progress, the recruits will take their places in the ranks, and, later, in a troop of two ranks made up of several groups. Under-officers should be used as flank men of the front rank of the troop.

“General instruction” * must comprise all duties, and, from the day the recruit joins, must progress in harmony with practical demonstrations, which it will explain and amplify. Care must, of course, be taken during the “General Instruction” lesson not to waste time in enlarging on things which the man learns by practice, such as guards and stable duties, or to weary him by making him learn by heart dull theoretical complicities as to his duties and the like.

Such procedure can only tend to dull the intelligence.

Every effort must, on the contrary, be made to cultivate the power of individual thought and to widen the horizon. It is impossible to go too far in this direction, as the intellectual advancement of the men is of assistance in all branches of training, not only directly in the greater ease with which they assimilate knowledge, but more especially indirectly by increasing their powers of judgment.

Instruction in field-training is, of course, of great importance. It is a common fault to commence with detailed instructions, instead of

first presenting to the men a general representation of war and its necessities. The recruits can thus only grasp with difficulty the general connection of a matter which up to now has been entirely foreign to them, and the instruction culminates in a mechanical committal to memory of matters the truths of which do not dawn on the understanding until later on when practice has made them clear. The exact opposite of this procedure should be aimed at. The man must be able to enter at once on his practical course with his understanding cleared, and try to confirm for himself by practice the knowledge gained. It is therefore advisable, during the winter, to devote the time allotted for theoretical instruction in field-training to elementary explanations of the necessary tactical ideas after the manner of the war game, either on the map, or by the aid of sand models, and care must be taken even here to deal with distances that correspond to service conditions. The garrison field-days later on in the year accustom the men too much to short distances and minor situations, such as in nowise correspond with the conditions of modern war, and often render the further training, carried out under service conditions, a matter of greater difficulty. It should rather be the aim of theoretical instruction and of garrison field-days to pave the way for further training.

278 TRAINING OF CAVALRY IN PEACE

The course can be made especially instructive if the teacher is in a position to enliven his lectures by means of real war experiences and events. This demands considerable historical knowledge. Unfortunately there is no purely cavalry work in our literature suitable to this purpose. A cavalry history of the war of 1870-71 would be a mine of lore for the study of cavalry matters if it could be made to go into details without at the same time losing sight of main principles. The General Staff history contains an extraordinary amount of very interesting and instructive matter on the very points in question. The regimental records also offer us much that could be utilised for instructional purposes, but the matter is unfortunately widely spread over various volumes and difficult to collect. It would be a grateful task to amass the available material into an historical instruction manual.

The fundamental principles for instruction in field-training must, of course, be instilled into the recruit. The teaching should, however, be deliberate in its progress, and convey the essentials to the pupil in due detail, so that the result may be complete clearness and sureness of knowledge. In the following years of service the material may be developed and extended as far as the intelligence of the men will allow.

B. FIELD-TRAINING

1. *General*

Instruction in reconnaissance and screening, as well as in the service of reporting, forms the most difficult part of cavalry training, not only because in peace exercises, especially in small garrisons, it is difficult to create the conditions under which such duties would have to be carried out in war, but also because we are face to face with a new matter which demands a knowledge from our training *personnel* with which it is not equipped.

Almost all our cavalry commanders, both regimental and brigade, have grown up in the views and traditions of the past, and find a difficulty in adapting themselves to the necessities of the present. Our whole cavalry organisation no longer corresponds to the demands of modern war, and our larger exercises are arranged according to views which are no longer applicable. The young cavalry officers are thus being brought up on lines that have become too narrow to prepare them properly for the demands of war. Towards their theoretical training for their profession, also, they receive but little assistance, as the commanders who should conduct this training are not themselves fully prepared for the task, and are ignorant of how to undertake it. They have often but a hazy conception of

the larger strategical combinations, whilst military history and the lessons of war are generally but little studied.

All the efforts, therefore, which I have made in earlier writings towards this end, have in a great measure fallen upon barren soil, and at the present time the cavalry knows no systematic training to assist it in the solution of those problems which will fall to its daily lot in war, and upon which, before all else, rests its efficiency as an arm. We have, it is true, a new "Field Service Manual," and the number of annual reconnaissance exercises has somewhat increased; but the whole of the cavalry can by no means take part in them, and the foundations for a systematic construction of the whole course of training are not as yet laid down.

Endeavour should be made to add to the winter theoretical work some practical training of the squadron in its duties as a reconnoitring squadron, as part of a screen, in outpost duties with the independent cavalry, and as divisional cavalry. This training should include instruction as to all technical means of communication, a knowledge of which should be common property to the whole of the cavalry. The squadron should be inspected in this branch of training just as it is in drill, for herein lie its most important duties. After this inspection these subjects should be practised in the regiment and then in the brigade, for

which formations also there should be inspections by higher authority.

Finally, the whole training must culminate in a double event—first, manœuvres; secondly, an annual reconnaissance exercise on a large scale for the whole of the cavalry. How such exercises may best be arranged, and how there is no need to adhere to the boundaries of corps' areas or to the established tactical formations, I have already given my opinion.¹ Up to now but little has been done in this direction. Tradition and force of habit are difficult to overcome, and even senior officers—corps and division commanders—do not always supply the necessary inspiration, as this branch of instruction often lies outside the limits of their own education. The Inspector-General of Cavalry should continually show fresh initiative in this matter, and endeavour in every army corps, in direct co-operation with the Corps Commander, to guide the instruction into uniformity of method. If events are left to follow their own course, improvement can only be extraordinarily slow.

But even if we are successful in instituting a uniform system in the whole realm of training, we must not expect to reach the desired end too quickly, but only after years of continued, purposeful, and consecutive effort. The evil is deep-seated, as has already been said; for

¹ "Cavalry in Future Wars,"

the available instruments of training have in many cases themselves grown up under the ban of antiquated red-tape notions, and cannot be expected all at once to become the vehicles of modern thought.

The personal factor will therefore be a weighty one. What strength of personality is possessed by those promoted to fill the commands of regiments and brigades, as well as the position of Inspector, will be of great importance. But this is a question that I, naturally, must not discuss. I think that the procedure indicated, according to my view, may be gathered from what has gone before.

It is, on the other hand, of great importance that the rising generation of officers and under-officers should be trained in a modern school of thought.

I have frequently drawn attention to the necessity of educating young cavalry officers for their duties, and I believe that such special education can best be obtained in the small officers' riding-schools that are now springing up. It is regrettable that at the officers' riding-school at Paderborn, which is in other respects admirably organised and conducted, no attention is paid to the theory of reconnaissance, and all the time is devoted to the practical side of the question. I feel convinced that the curriculum might easily and with advantage be made to

include theoretical and scientific instruction for the young officers. This system has already been adopted in the Swedish army.

Three subjects should be introduced—viz. *strategical lessons*, to give officers an insight into the movements of modern armies, on which they may have to report when commanding patrols; *military history*, with particular reference to cavalry work, which should give them an idea of the conditions and difficulties of real warfare, and compensate for the want of practical experience; and, as a final preparation for their career, *the strategical and tactical employment of cavalry in war*, according to modern principles. At the same time, scientific and practical instruction should be given with regard to the technical appliances of the transmission service; all cavalry officers should know how to handle these appliances, and not only the selected few who have attended telegraphy courses.

During staff-rides,¹ which will form part of the course at the riding-schools, the officers should be trained properly to appreciate the ground, with a view to its suitability for attack and defence. I have already drawn attention to the importance of this “eye for country” for patrol commanders, as the result of an engagement may frequently depend on the commanding officer having obtained correct reports as to the possibilities of the terrain.

¹ “Uebungsritten.”

It is never really safe to use maps drawn to a scale of 1 in 100,000 for tactical purposes; and, having been for many years in charge of topographical work, I can speak with some authority on this subject.

The instructions for carrying out this course are a matter for the Inspector-General, in conjunction with the Chief of the General Staff. It really seems preposterous that the work of reconnaissance, which is about the most important factor in strategical operations, should have been hitherto left in the hands of absolutely untrained men. The experiences of the wars of 1866 and 1870-71, which only gave very meagre results as regards reconnaissance work, point the moral clearly.

All young cavalry officers should, of course, attend these schools, and possibly even cavalry captains and senior lieutenants. The more advanced of them, at all events, who are likely to rise in the service, should be sent to Han^{ov}ver to attend a further course. Final preparation for the rank of regimental commander would take place at the field-officers' course in Han^{ov}ver, and here the theoretical instruction would conclude with a systematic training in the planning and conducting of reconnaissances and similar exercises, while at the same time a refresher course in kindred subjects would be undergone.

The fact of the matter is that the cavalry officer

of to-day requires a better general military education than any other officer, not only for his own efficiency in time of war, but also to enable him to train his subordinates on modern lines.

All this theoretical instruction of officers must, of course, be supplemented by tactical exercises and staff-rides conducted by the General Staff, in which all officers should take part. Exercises in judging ground should also be continued. For none of the branches of the service is this system of education more important and more necessary than for the cavalry, as its efficiency in the field during peace exercises cannot well be tested satisfactorily, certainly much less so than that of the other arms. The main points with which the latter are concerned are marching and fighting, and these can be learnt by practice, whereas the conditions for a reconnaissance on a large scale cannot be properly reproduced. During staff-rides also, which are much more useful than war-games, outposts and screening under modern conditions can be discussed.

With regard to the training of officers for patrol work, which is so absolutely necessary, I would refer the reader to my statements in "Cavalry in Future Wars" and "Organisation und Ausbildung der Kavallerie." The principal point is the "Patrol Rides," which were suggested by me, and have proved eminently successful wherever introduced. These rides should not,

however, be carried out only occasionally, at the discretion of the regimental commander, but systematically and progressively, so that as many as possible of the different systems of patrols can be tried. They should be inspected by the brigadier. When the regiments of a brigade are not quartered together, the number of "official journeys" allowed to the brigadier for his inspections should be increased; the present number, which is sufficient for the other arms, is calculated only for riding and drill inspections, and no account is taken of the fact that field-training inspections should be added in the case of the cavalry, where it is of far greater importance than in the infantry.

As officers are trained in the regiment, so should under-officers be trained in the squadron. The captain himself should, under the supervision of the regimental commander, systematically direct the whole training. The patrol-rides of the under-officers can commence towards the end of the winter. During the staff-rides, outposts and screening duties should be discussed in the field, in connection with the "Field Service Manual," so that the under-officers may be fully trained before the practical work in the squadron begins. The regimental commander, however, should see that the training is properly and uniformly carried out. In this way only can complete mutual understanding be arrived at.

As regards the practical exercises in the field, these should represent typical situations, as far as possible, according to a carefully prepared plan. The number of exercises carried out is of minor importance, and the objects aimed at should be to present conditions of actual warfare, and to see that the problems and distances correspond to modern conditions as far as possible, and, in general, to clearly indicate the principles of modern war. The usual childish exercises, where the two sides confront each other at close range, and which end with a charge of two troops, do far more harm than good, as they are calculated to create quite an incorrect impression of the principles of warfare. For the rest, all exercises should reproduce, as far as possible, the ideas and conditions which I have endeavoured to explain in the chapter on reconnaissance and raids.

2. *Training at Manœuvres*

If manœuvres are to be of real value to the cavalry, care must be taken to demand nothing of the troops but what would be required of them in war, and to adhere strictly to the spirit of the new "Field Service Manual." This has not as yet, at any rate in the cavalry, become part and parcel of the system. The new names have certainly been adopted, but the spirit of the old Regulations still pervades the dispositions of commanding officers of the cavalry, and the

288 TRAINING OF CAVALRY IN PEACE

conduct of the arm itself. This is most apparent in outpost duty, where demands are made on the outpost cavalry, especially in regard to reconnaissance, that in nowise correspond to the teachings of the "Manual"; and this is the more unfortunate, as the economy of strength demanded in the "Field Service Manual" is absolutely necessary if the divisional cavalry, in particular, is to be prevented from failing soon after the commencement of a war.

The duties of outpost cavalry are limited to watching a strip of country to the front, and possibly on the flank, of the line of infantry outposts, and to carrying messages between the different sections of the latter.

Standing patrols are the most useful for observation work. In the case of an enemy close at hand, they should be in touch with him, and should, if there be no close-reconnaissance patrols, watch his flanks as well; however, with proper dispositions this should be unnecessary. The standing patrols would, in any case, have to be in a position to detect and report any advance on the part of the enemy's outposts and any movement of the enemy denoting an advance or retirement. If the enemy, however, is so far away as to be out of touch with the cavalry cordon, reconnaissance work beyond this line should be carried out by those portions of the divisional cavalry that are *not* assigned to outpost duty.

If, on the other hand, the outposts on either side are in close touch, reconnaissance to the front should be carried out by infantry patrols. It may, however, be advisable under certain conditions to let weak mounted patrols follow such infantry patrols to covered positions for carrying messages, or to employ them dismounted in the place of the infantry.

If these arrangements are not strictly adhered to, it very easily happens, during manœuvres, that reconnaissance work is carried out by the reconnaissance patrols in the daytime, but at night by the outpost cavalry. In the morning the latter is then scattered in all directions and cannot be collected again. Such dispositions are also entirely opposed to the teachings of the "Field Service Manual," and are unsuited to conditions of real warfare.

In time of war the reconnaissance patrols naturally continue their work of observation during the night, and consequently they need not be relieved by patrols of the outpost cavalry. In peace time, on the other hand, it is still considered remarkable if the patrols remain in touch with the enemy at night, and those that do so have been dubbed "sticky patrols." Those, also, which should really be in touch with the enemy throughout the night usually get under cover, and have been known to spend a comfortable night in excellent quarters.

290 TRAINING OF CAVALRY IN PEACE

In making arrangements with regard to outpost cavalry, attention should be paid to reducing the distance which messages have to be carried. In this respect, horses are not always sufficiently considered. When outpost companies are pushed out far to the flank, it would usually be well to observe the instructions of the "Field Service Manual," and to detail small detachments of cavalry to the companies for their independent use, as this will prevent considerable waste of strength. It will often be necessary, on the other hand, to protect unsupported flanks of a line of infantry outposts by special detachments of the divisional cavalry that do not form part of the outpost cavalry. Such detachments would, if possible, find housing for themselves and be self-protecting, though they might, under certain circumstances, be given a small force of infantry for local security.

It is most important that the outpost cavalry should be concentrated in good time in the morning before the commencement of the march or of the engagement, and that they should retire in *formed* order on the divisional cavalry. This requires careful preparation and instructions; some practical method must be found which will overcome the difficulties that now present themselves. The various squadron commanders must act in conjunction with the officers commanding the outposts. All the higher officers, and those

directing the manœuvres, must, however, always keep this matter in mind, so that the present system, which offers such serious disadvantages, may not become so customary as to be carried on in time of war.

Having examined the flaws still to be found in our outpost system, and which are likely to adversely affect the arm in war, we find, on turning to the sphere of reconnaissance, that such defects are even more prevalent.

The arrangements that are usually made in this matter often draw on the strength of the cavalry in a manner quite out of proportion to the demands of actual war, and weaken the squadrons to such an extent as almost to destroy their fighting value. The weak point is, in the main, as follows :

It is usual for every order given by a commanding officer to direct that a reconnaissance should be carried out, even though the previous order may have given instructions for one in the same direction. The cavalry obeys these orders, and sends out fresh patrols each time the order is repeated. As the patrols are always told to keep in touch with the enemy, and as, on account of peace conditions that obtain, nobody thinks of relieving them, they collect in one direction, whilst the squadron becomes weaker and weaker.

I consider that every effort should be made

to combat this bad habit. Care should be taken not to send out unnecessary patrols, and to call in, from time to time, those that have been sent out, or, where necessary, to relieve them. I believe that this would be possible if the following rules were observed.

If an order has been given which entails a reconnaissance in a certain direction, it is unnecessary that this should be repeated in a subsequent order. Other directions rather, which are indicated by reason of the altered conditions, should be brought to notice, and reference made to the reconnaissance already despatched. Under no circumstances, however, should a cavalry commander be induced, on receiving instructions to reconnoitre in a certain direction, to send a patrol to a point where he knows his patrols to be already in touch with the enemy. The necessary economy of strength can only be effected by leaving the command of the patrol service *entirely in the hands of the cavalry commander*, who must be responsible to his superior officer for the carrying out of the reconnaissance work entrusted to him. The superior officer should only interfere if he discovers obvious mistakes, or if other circumstances render such a step absolutely necessary. He must, for his part, see that orderlies and reporting patrols, that come in, remain with his staff, and that they are sent back to the squadron when opportunity offers, so as to be available for fight-

ing purposes. This should be made a standing order at manœuvres.

All patrols that are sent out must receive definite orders as to how far they are to advance in any given direction, how long they are to reconnoitre in that direction, and when they are to return. If, at the expiration of such a period, renewed reconnaissance is found necessary in the same direction, relieving patrols should be despatched in good time, i.e. before the first patrols have returned; and these fresh patrols should, if possible, meet the returning ones, in order to exchange notes regarding the enemy. For this purpose the outward and homeward routes of the patrols should be prearranged as far as circumstances permit.

In manœuvres, when one officer takes over command from another, he must inquire as to the arrangements made for reconnaissance work, and must take measures accordingly.

When a fresh squadron is sent out on reconnaissance, due notice must be given to the squadron to be relieved. The two officers commanding must act in conjunction, so that the officer being relieved can draw in his patrols and the relieving patrols of the new squadron be sent out in good time.

It should also be remembered that, in time of war, close reconnaissance would gradually develop from distant reconnaissance, and would not, as a

rule, require any fresh dispositions such as are usually found necessary at manœuvres.

During all exercises, especially when a long advance is being made and distant patrols are not actually sent out, the commanding officers should be furnished by the directing staff with such information as these patrols would in all probability have obtained. They should also be told which of the distant patrols may be assumed to be in touch with the enemy, and which have either returned or been captured or wiped out. The distant patrols, which are to be in touch with the enemy, might with advantage be despatched by the directing staff, before the manœuvre commences, in time to procure quarters and receive instruction as to the situation. The troops should, of course, be informed of the despatch of these patrols, and all further reconnaissance will be furnished by the cavalry commander. Every cavalry detachment must also know exactly what area it is to reconnoitre, and what reconnaissances have been, or are assumed to have been, carried out by neighbouring detachments.

It is a mistake to indicate the direction in which a near reconnaissance should be made, without limiting the distance of it. It is the duty of the distant reconnaissance to locate an opponent who is advancing from a distance. As long as the enemy is under the observation of

the distant patrols, the close reconnaissance should not be pushed forward to meet him, but should be advanced from one position to the next, within definite limits. When these limits have been reached, the close patrols should be drawn in by the squadrons furnishing them, and fresh patrols be despatched to the next position.

It would also be well if the directing staff were to lessen the work by stopping and sending back to their units such patrols as, by reason of their direction, cannot possibly come in contact with the enemy; or it may even suffice, for the purposes of the manœuvre, to assume the despatch of patrols in such directions. They might also be given sealed orders, only to be opened at a certain place, containing the data necessary for negative reports and instructions regarding their return to their unit.

I believe that if such methods were adopted, and if the patrol leaders confined themselves to sending such reports as would be sent in real war, which would include a clear and concise statement regarding the configuration of the country, it would be possible to avoid the unwarrantable weakening of the squadrons now in vogue, which does not even produce a correspondingly efficient service of communication. It is, however, true that the art of sending a few, but good reports, and of sending them at the right time requires, in the leader of the patrol,

sound tactical judgment, and a training that is nowadays but seldom obtained.

Senior officers also are often to blame for the frequency of reports. Appointed to a command at manœuvres, they want to know every detail about the enemy, and the exact minute in which an advance or a movement is made. Every little detachment must be reported, and the slightest movement watched. The result is that they encourage patrols, not only to send as many detailed reports as possible, but, if necessary, to obtain the information in a manner incompatible with service conditions. This is a deep-seated evil that is to be seen at all manœuvres, and one that commanders should consistently endeavour to eradicate.

Such procedure reacts upon the commanding officers themselves by exercising a harmful influence on their individual training. If everything is known about the strength, the line of advance, and the distance of the enemy, generalship descends to the level of the solution of an arithmetical problem, decisions of the commanding officers being based on complete and established data. What a difference is there in actual warfare! But meagre information is available regarding the enemy, and decisions must, as a rule, be based on a certain knowledge of one's own plans and a rough idea of the numbers, intentions, and fighting strength of the enemy.

In the former case, decisions of commanding officers are the result of calculation; in the latter—i.e. in actual warfare—they are a matter for military skill, or the intuition of genius, which is a very different thing. These are the decisions that officers should be encouraged and trained to make; but, unless the malpractices that have crept into the reconnaissance work are rooted out, this valuable training for actual warfare is likely to be lost.

But all that is only by the way. We are now discussing the cavalry and not the generals, and I should like to point out the great importance of training units themselves to report in a manner suited to service conditions, i.e. to report only important matters, and these *at the right time*, so that the commanding officer may receive information regarding the enemy in time to make the necessary dispositions, while at the same time the reconnoitring detachments need not unduly weaken themselves by the too frequent despatch of messages. On the field of battle, reports could be carried by individual horsemen instead of by patrols, but of these only a limited number should be drawn from the squadron, as it is not possible to rely on their return. They must also be taught only to take reports to such places as they could actually reach in war. At manœuvres and other exercises they are often to be seen riding about behind the firing-line in the most

exposed places, having apparently no idea of the dangers which they would run in real warfare. This habit, acquired in peace, may in time of war entail the loss of many riders, horses, and reports.

The best means of counteracting these bad habits is to tell the despatch-riders exactly where to go, and to prevail on the officers concerned to remain in certain fixed places, as in real warfare, instead of moving about on the field of battle, even within the zone of the enemy's fire. It is true that, by moving about and exposing themselves, commanders can get a better idea of the engagement, and can make dispositions more rapidly and better than they could from the rear; but, at the same time, such procedure spoils their own training by removing difficulties that would exist in time of war. Making suitable dispositions from the rear, with hardly anything but reports to go by, is quite a different matter from conducting the fight from the front, where a clear view of the situation can be got.

As regards reconnaissance and screening, the principles evolved in the chapter on these subjects hold good for the conduct of cavalry at manœuvres.

First of all, we must see whether the cavalry attached to the different divisions should, according to its strength, be only classed as divisional cavalry, or whether its total strength is such as to entitle it to be considered as army cavalry.

Units detailed to act as divisional cavalry should not move about independently in the manœuvre area, as this would be in opposition to the essence of their duties, nor should they, on the other hand, remain tied to the infantry, as they unfortunately so often do. They must learn to advance from point to point, to reconnoitre by areas, to observe from a distance with glasses, to judge correctly which flank is of most importance for reconnaissance, and, finally, to occupy during the engagement such ground that may be valuable or essential for successful reconnaissance. Regiments and squadrons detailed as army cavalry should, on the other hand, act according to the principles involved.

When army cavalry is taking part in manœuvres, the leaders should be recommended to include in the exercises reconnaissance and screening problems on a large scale. This can generally be done. Then the merging of the distant into the close and battle reconnaissance should be practised, the gradual withdrawal of reconnoitring squadrons on the approach of the enemy, the evacuation of the areas allotted to them, and the independent action necessitated by the fresh conditions. This stage is instructive, not only for the reconnoitring squadrons and patrols, but also for the cavalry division itself. They will have to decide on which flank of the troops in rear to concentrate, and in this matter must act in

conjunction with any divisional cavalry there may be; at the same time, they must take into account the ground and the general strategical situation. The final decision will, as a rule, have to be made after duly weighing many varied and often conflicting considerations.

If a general engagement of all arms should result, it is important, even though the ground should not be suitable for a charge, that the best use should, in any case, be made of the fighting value of the troops. Nothing is more incorrect and more opposed to the principles of warfare than an attitude of inactivity in anticipation of the possibility of an attack. If écheloned forward on the flank of the force, the cavalry should make every endeavour to develop an attack against the flank or rear of the enemy by fire or shock action, and to threaten and harass his artillery. The heavy artillery of the field army will often afford a suitable object of attack, more so, perhaps, in manœuvres than in actual warfare. It is undoubtedly wrong, whatever the conditions may be, to remain inactive and watch the other arms struggling for the palm of victory. "*Activité! activité! activité!*" cried Napoleon to his generals, and this, too, should be our first demand from our cavalry leaders.

It would also be a useful exercise if pursuits could occasionally be arranged for at manœuvres, so that the cavalry may learn how to initiate

them in good time, and to push them home with energy. The difficulties of pursuits, and the principles to be observed in their conduct, are dealt with elsewhere.

If the cavalry endeavours to carry out the tasks I have sketched above, and at the same time effects the necessary economy of strength, it will reap benefits from manœuvres that will materially assist its training for war, provided the antiquated ideas that still prevail are discarded.

3. *Larger Reconnaissance Exercises*

With regard to the arrangement of larger reconnaissance exercises, I would refer the reader to the proposals that I have frequently brought forward,¹ and that have also been adopted, to some extent, in practice.

I should like to supplement them by drawing attention to the importance of frequent practice in screening. In a war of operations, which includes the encounters resulting from strategical concentration, the functions of screening are, in my opinion, most important. The American War of Secession showed in a surprising manner what could be done in this respect. Stuart's screening of the left wheel of the Confederate army, after the battle of Chancellorsville, for instance, was a masterpiece, and the reconnaissance carried out

¹ "Cavalry in Future Wars."

302 TRAINING OF CAVALRY IN PEACE

by Mosby's Scouts during the same period was equally brilliant. I would recommend the study of these features of the war, as they are remarkably suited to the present day, in spite of the great change in conditions.

Our cavalry keep, as a rule, but little in touch with such matters. The new "Field Service Manual" introduces the idea of offensive and defensive screens, but the cavalry lacks experience in them. Offensive screening is usually accepted, it appears, at all events, at the outset, as being somewhat similar to reconnaissance duties. Real screening is but seldom practised, as operations only last a short time, and usually end with a cavalry encounter, entailing a lapse into the usual set piece.

With regard to these exercises, I would point out that defensive screening, combined with natural obstacles, and possibly with the assistance of the other arms, is much more effective than the offensive method, and therefore deserves more attention, and, further, that there is a considerable difference between a reconnaissance and an offensive screen.

In a reconnaissance an advance is made in the direction which the army commander considers to be most important, and it is left to the enemy's cavalry to oppose this advance. In offensive screening, on the other hand, the enemy must be found before he can be attacked and beaten.

An advance would naturally not be risked in a direction that would avoid the enemy's cavalry, and thereby afford it the opportunity of approach against the main army. This should be prevented at all costs. An advance must consequently not be made until information has been obtained from patrols or scouts regarding the position and the line of advance of the enemy's cavalry. Then a determined attack should be made on the cavalry, the force being concentrated as much as possible for this purpose. It is only after this attack has been successfully carried out that the real screening work begins.

The two main points that should be observed when carrying out such exercises are therefore: (1) no advance should be made until the enemy's line of advance has been discovered; and (2) the forces should be distributed, after the defeat of the enemy, on a broad front, in accordance with the requirements of the screening duties, while the enemy's beaten cavalry must be carefully watched, to prevent its further activity.

With regard to defensive screening, it is necessary above all, first, to occupy with sufficient strength all passages over the natural obstacle that has been selected, and to effect a tactical disposition of the forces that will enable them to do a maximum of work with the expenditure of a minimum of strength, making the greatest possible use of field entrenchments;

secondly, to so dispose the reserves that they will be quickly available to strengthen any threatened point; and lastly, to arrange a system of communication along the whole screening-line, employing any suitable technical appliances in such a manner that the system will continue to operate even though the enemy's patrols should break through the line. It must be possible also to communicate quickly and safely to the troops in rear, so that any detachments of the enemy that might break through the line may be intercepted. The cavalry telegraph, in fact any kind of telegraph, is the least sure method of communication, particularly in the enemy's country, owing to the ease with which it can be cut. There must, at any rate, be other means of rapid communication besides the telegraph, such as flag signals or the light-signal.

In screening work, balloons are often very useful for discovering the direction in which the enemy is advancing; they are more suited to stationary work, especially behind a protected area, than to active operations. The reconnaissance and the action of the cavalry could then be based on the information received from the balloons. It will, unfortunately, seldom happen during such manœuvres that a balloon is available, but all the necessary technical appliances for communication should certainly be at hand.

The value of all these exercises, especially

in the case of reconnaissance, is largely dependent on the manner in which the enemy is represented. The best plan is, of course, to place real troops at their full strength opposite to one another, but this is scarcely practicable, on account of the expense entailed. Even the Imperial Manœuvres do not faithfully represent modern armies and distances, but only reproduce portions of great operations on a reduced scale. The fact of the matter is that it is impossible, in time of peace, to set on foot anything approaching the numbers of men, or to cover anything like the extent of country, necessary to at all correspond with the conditions of modern warfare. The only feasible plan is to indicate columns of the army, and even large bodies of cavalry, by flagged troops; but it is well to place real troops at the head of these columns, so that they may form the vanguard, and may send out the full number of patrols and outposts, at all events to the front. The reconnoitring organs would thus, at any rate to the front, be confronted by an enemy disposed as in real warfare. I need hardly say that *both* sides should send out these reconnoitring detachments, as far as possible, at full strength; no advantage can possibly be derived from the exercises if this is not done.

It is also very important to put the divisional cavalry into the field, where possible at full

strength, as the difficulties that beset the reconnoitring patrols will only then become apparent. This divisional cavalry need only send out a limited number of these patrols, as they are, as a rule, not absolutely necessary in such exercises, but the work of *screening* should receive careful attention. The division should therefore be surrounded by a screen of *security patrols*, and all points from which the enemy's patrols might observe the columns should be occupied. If these columns are on the march, the security patrols should advance in "bonds successifs," together with the divisional cavalry, from one line of observation to the next, and thus prevent any possible reconnaissance on the part of the enemy. If the ground on the line of advance is suited to defensive screening, this method should be adopted, and all the enemy's patrols and despatch-riders seen should be hunted down. When the hostile reconnoitring patrols have been driven back behind their own screens or outposts, measures should be taken to prevent their re-issue. If the enemy's patrols endeavour to remain for the night in the vicinity of the troops they wish to keep under observation, they should, if possible, be attacked and captured. When operations are being carried on in friendly country, it will be well to ensure the co-operation of the inhabitants in obtaining information regarding the movements of the enemy's troops. There are

always old soldiers to be found among the civil population, who would interest themselves in the matter if called upon by the local magistrates to assist, and who would certainly do their utmost to help their own countrymen and to hamper the enemy. Care should, of course, be taken not to go too far in this direction, as unfortunate consequences might possibly result.

It will also be well to send numerous umpires with the army columns and their vanguards, and with the divisional cavalry, and also along the main roads, whose task it will be to conduct the manœuvres as nearly as possible on the lines of real warfare. Umpires should also be attached to reconnoitring patrols and squadrons, at any rate to those of one side, so that there may be an impartial witness of any encounter. The appointment of these umpires would have the further advantage of providing work at the important points for a larger number of officers, who would thus learn more than they would do when simply marching with their units.

When the various portions of the army are to be represented by flags, each flag should be made to represent a company, a battery, or a squadron, but the flags should be so disposed as to oblige patrols to estimate the strength of the columns by their length, as in war there would not often be time or opportunity to count the separate tactical groups of the enemy. Too few flags

should not, however, be used, but rather as many as possible, so as to produce the effect of a continuous column on the move, infantry and artillery being clearly indicated. The detachments of cavalry that would in actual warfare be stationed at different points along the column might with advantage be represented by real cavalry, who would be able to pursue the enemy's horsemen. Artillery patrols might also relieve the cavalry of this duty, and, in difficult country, march on the flanks of the column, thereby making matters more difficult for the hostile scouts. All measures of this description would greatly assist in giving to manœuvres the character of real warfare, and in increasing the difficulties in the way of the far-too-easy peace-time reconnaissance.

Umpires need not confine themselves to deciding the results of engagements. They might very well draw the attention of patrols that act in a manner incompatible with service conditions to the hostile spirit of the population, or, if necessary, bring about real or assumed attacks that would inflict such losses or damage on the patrols as they would probably have suffered in war. They can, in short, do much to give the manœuvres a semblance of reality.

The rôle of umpire is also a useful training for regimental officers. Regimental and squadron commanders cannot form a correct idea of the possibilities and functions of their reconnoitring

detachments unless they have accompanied patrols as umpires.

It is, in my opinion, impossible to go too far in the direction of making conditions resemble as much as possible those of actual warfare, as one of the great difficulties to be faced consists in sustaining the interest of the troops and the semblance of reality.

Goethe, in his "Wilhelm Meister," remarks how rare it is to find among men "any kind of creative imagination." Nothing, indeed, is more difficult than to take a keen interest in hypothetical conditions. This truth applies particularly to soldiers, and the difficulty is one from which most peace exercises suffer.

Some very powerful incentive is required to induce troops to really enter into the conditions presupposed by the general idea of the manœuvres. They must continually imagine the existence of real warfare, with all its exactions and influences, and they must act consistently according to the spirit of purely imaginative conditions. It is during the reconnoitring exercises of the cavalry that the men's powers of imagination are most heavily taxed, and that most mistakes and unnatural situations result in consequence. Even the officers display a lack of imagination in their inability to conform to service conditions, to appreciate the difficulties and dangers of any situation, and to take them into account when

310 TRAINING OF CAVALRY IN PEACE

making their dispositions, and in their general conduct.

During the last decade, reconnaissance at our smaller field-training exercises and manœuvres has suffered greatly from red-tape methods and the consciousness of peace conditions. I refer mainly to the transmission service. Times without number, single horsemen arrive with messages from points behind the enemy or his outposts, so that the messenger must ride right through the enemy, thus entailing the certain loss of the report. It should be unnecessary to point out that the best messages are quite useless if they do not reach their destination.

It is a vital mistake in our army, and one to which I have frequently drawn attention, that these single orderlies are sent with messages, and that even for long distances. Granting that the improbable might happen, and they were successful in finding their way without maps, often at night and in foggy weather, through a strange country, single horsemen would, in the enemy's country, be often captured or fall a prey to the hostile population. In spite of all this, every one is opposed to sending a patrol with a message, and, when it is done, the patrol's strength is cut down most unwarrantably. I am afraid that only bitter experience will teach us the folly of this procedure.

It also frequently happens that technical appli-

ances for transmission are used in a most illegitimate manner. Telegraph-lines belonging to both sides have before now actually been laid peacefully side by side, and had their respective termini within the cantonment area of the opposing armies. Until quite lately, telegraphic messages were often sent through the enemy's lines.

In these exercises both sides, as a rule, find considerable difficulty in remembering the assumed hostility of the population, and in making corresponding dispositions. When selecting quarters, this point is frequently forgotten, and patrols spend the night in villages in hostile country, and in close proximity to the enemy's cantonments, where escape, in time of war, would be practically out of the question. On such occasions the prospect of comfortable quarters, where the horses can be well cared for, has probably more influence on the patrol leader's plans than military exigencies, and the protective measures taken would probably prove correspondingly inefficient. The exercises should therefore be so arranged that the patrols and, if possible, the reconnoitring squadrons of both sides, advance into the enemy's country, thus placing themselves in difficult situations; and the umpires should have instructions to interfere immediately if anything were done that would entail serious consequences in war time, as the lesson that should be learnt is how to act in the enemy's country.

Particular stress should be laid on the method of writing reports. If instruction in this direction is to bear fruit, all the details as to contents, time and place of despatch, and any other important points must be thoroughly discussed. Our cavalry still suffers from bad habits contracted during peace training. It has not learnt to reconnoitre on a large scale, and consequently pays too much attention to details of the drill-ground, while it is unable properly to distinguish between strategical exploration and tactical reconnaissance. Even in larger exercises, where stress should be laid on ascertaining merely the strategical dispositions of the enemy, the tendency is always to report in detail, and as often as possible, while the relative importance of such reports is seldom assessed at its right value.

The question of economising strength is often entirely neglected, especially in the case of reconnoitring squadrons, just as it is with forces of all arms during manœuvres. The force is unwarrantably weakened by making too many detachments, and is then called upon to perform tactical evolutions which it cannot possibly carry out satisfactorily. The commander must learn to husband his force, even though his sphere of reconnaissance may be large. He must arrange the strength of his distant patrols according to the importance of the mission upon which they are despatched, and must reduce the number of

close patrols to a minimum, while being particularly careful to draw in his patrols at the right time. He must, on the other hand, realise the value of fighting as a means to the attainment of his object. It appears to me that there is some confusion of thought as to the use of engagements, particularly in reconnaissance work.

Formerly, the idea prevailed that cunning and speed were the important features of reconnaissance, and that the enemy's scouts should, if possible, be avoided. Now, however, the new "Field Service Manual" enunciates the principle that even patrols should attack the enemy's cavalry wherever met with. It is rightly represented that by pushing back the enemy's patrols and other reconnoitring organs his reconnaissance is hampered, whilst our own service of transmission is assisted, and that only by a ubiquitous offensive can an appreciable moral superiority be attained.

I should certainly be the last to oppose the idea of bold, self-confident, offensive tactics; but the question is whether such tactics would always be sound policy. In reconnaissance work, the first object of an engagement is to facilitate scouting; the second, to inflict losses on the enemy. Although the "Field Service Manual" is undoubtedly correct in principle, it should not be taken too literally, especially when the attainment of the object in view—viz. to obtain

information regarding the enemy—might depend on the result of a fight. If any doubt exists regarding the result, it may be better to abstain from an attack; while, if it is evident that a victory can only be gained at so heavy a loss as to adversely affect further reconnaissance, an engagement should, if possible, be avoided. Every effort should be made to render the tactical conditions as favourable as possible. A fight on foot is to be avoided as entailing waste of time and considerable loss. A defensive action dismounted should only be undertaken when there is a defile to be held that cannot be turned. Mobility, on the other hand, must be exploited in every possible way, in order that, if a fight is to be brought on, it may take place under the most favourable circumstances. In such a case, if an enemy is encountered who is either weaker or only slightly superior in strength, and who is known to be without support, he should always be boldly attacked. Stratagems, or creeping up to the enemy and avoiding his outposts and patrols, should only be resorted to when it is necessary to avoid discovery in order to attain the object in view. During training great stress should be laid on a proper appreciation of these principles, as our cavalry still lacks sound traditions with regard to reconnaissance work.

Thus no greater error could be made during reconnaissance exercises than to attach the most

importance to encounters between the main bodies, but this mistake is unfortunately frequently committed. It is on the exercise grounds that these mass engagements can and should be learnt. During reconnaissance exercises, however, the strategical conduct of detached columns, and, above all, the handling of reconnaissance organs, should receive most attention. These matters would, of course, be largely influenced by the result of the main action between the masses of the cavalry on either side, and this should be made clear to all concerned; but the manner in which such an engagement is actually conducted by the main bodies is of lesser moment, and all attention should not be centred in it.

It is, however, essential that the exercises should be so planned that the mass of cavalry does not advance in close formation in one group, and that the reconnoitring organs are not obliged to carry on the prescribed reconnaissances throughout the manœuvres within the area originally allotted to them, as would usually be the case where the armies, or their cavalry divisions, advance directly towards one another. This entails but a very elementary form of reconnaissance, and is mainly of use as an exercise in co-operation between the different units. The real difficulties only commence when, during the course of the manœuvres, the detached columns of the cavalry have to act in concert; when they endeavour to

co-operate after one of them has come into collision with the enemy ; when, perhaps, the areas allotted to reconnoitring squadrons have been changed ; or a success achieved by the cavalry of one side or the other produces entirely new conditions, to which the reconnaissance organs have to adapt themselves independently. These are moments that call for great powers of judgment on the part of the officers, and for skill and resourcefulness on the part of the men, and they are consequently very valuable for instructional purposes. The relief of the reconnaissance organs, hitherto never practised, but highly important, also presents many difficulties of a practical nature. An attempt should be made when arranging exercises to bring about situations of this nature, which will be of great service to the troops, and afford an opportunity of bringing to light cavalry talent among the officers. Though such talent is often to be found amongst the best horsemen or instructors, such is not always the case, and every effort must be made to discover and foster it.

The cavalry service is no place for mediocrities, and it is important that the directors of the exercises should be fully qualified to carry out their task, and be free from all dependence upon Regulation or prejudice. The personal equation plays a greater part in the cavalry than in any other arm, yet in no other arm is it, as a rule, so indifferently solved.

I should like, in conclusion, to draw attention to two more points.

First, I would insist on not more maps being distributed among the troops at these exercises than would actually be available in an enemy's country. The fact of being the whole time in one's own country, where the inhabitants are ready to give any information required, renders the work very much easier, and if, perhaps, in addition every man has a map, the difficulties that would crop up in time of war are not adequately represented.

The second point is of equal importance, though of quite a different nature. The movement of large bodies of cavalry in time of war entails considerable difficulties in the way of transport, and it would be well if these could, somehow, be made apparent during the exercises. The expense might certainly be heavy, but would be well justified, for it is in the cavalry, more than any other troops, that the drag of a transport column is most felt.

C. TACTICAL TRAINING

1. *General Remarks*

The squadron is the tactical unit when fighting either with the *arme blanche* or the rifle. The training of the squadron for the field and in the use of these weapons forms, therefore, the basis on which the efficiency of the cavalry rests.

The training of squadrons and of larger units should be carried out without affecting the general condition of the horses. The quality of the forage must certainly not be allowed to deteriorate during the exercises. A mistaken idea prevails that horses in hard condition must be thin; on the contrary, when they are in good training and have been properly cared for, muscle should take the place of fat. Good condition depends upon good horse-mastership and sufficient individual training. Without these fundamental essentials, drill will only make matters worse, and as I stated above, the horses would have to be broken in afresh according to a stricter system. Thin horses always lead one to infer great shortcomings, either in the individual breaking, or in the methods adopted for drill or training.

The demands that are made on the strength of the horses should be increased gradually and systematically, and on no account should the drill gallop be undertaken too soon. The gallop should be practised slowly at first, and the pace gradually increased. At drill the horses should occasionally be rested by alternating mounted and dismounted exercises.

Tactical exercises under service conditions, mounted and dismounted, should be carried out as far as possible in new and broken country. If this is impossible in the garrison, the squadrons

should spend at least a portion of the period allotted to training on exercise grounds, even though it may be necessary to alter the time for training, so as to fit in with the needs of other units in the spring. The days should, of course, be used alternately for drill and field-training. It would be well if the same principle were introduced in the regiments and brigades, whose stay on the exercise grounds would then have to be correspondingly lengthened.

At drill, ceremonial only excepted, and for all practice in the use of weapons, all four reins should be held in the left hand. It would also be well to lay down, once for all, that in all drill the men should sit down in the saddle at a trot, and that rising in the stirrups should only be permitted on the march, or during long evolutions in column, and then only when especially ordered. It is impossible to ride or to carry out evolutions in close formation when the men rise in the saddle, as this inevitably leads to a looseness of formation dangerous in the presence of the enemy.

When peace exercises are carried out without any opponent, all cavalry formations should assume the front to be where the commanding officer is. This, of course, holds good in time of peace, as in war the front is determined by the position of the enemy; but I consider there is an element of danger in the application of peace instructions

to war conditions (13).¹ The commanding officer cannot always be on the side that, according to the direction of the enemy, is the front, as he may have to change his position in order to observe the enemy and to follow the lie of the ground. In such cases the Regulation in question, however useful for the drill-ground, might lead to serious misunderstandings.

2. *Training of the Squadron*

At the commencement of the real squadron drill, exercises in files and in sections gradually develop into troop drill, and here the men ride at first in open order and gradually adopt a closer formation. Everything should be practised that the troop will be required to do when part of the formed squadron.

Great attention should be paid to the training for the attack against cavalry, first in single rank, then in two ranks knee to knee. Long gallops, such as would be necessary in the attack on firing troops, also require careful preparation. It is important that the men should learn to close in for the charge, without disturbance or crowding. If, however, there is to be a long gallop, they should ride in quite loose order. Exercises entailing prolonged advances and evolutions at full

¹ " . . . The *front* is that side on which the leader is.

"The terms 'right' and 'left' flank are used with reference to the direction of the enemy. . . ."

speed with closed ranks should not be carried out more often than necessary, and should only be commenced when the men have their horses under complete control.

Jumping and scrambling over obstacles should also be practised, at first in single rank and extended. There should be opportunities for practising scrambling near the garrisons. The Regulations on this subject (46 and 104).¹ should, in my opinion, be improved on, as they

¹ “. . . Should obstacles be met with, the squadron leader must choose the best method (jumping or scrambling) and the most suitable formation for negotiating them. In the larger formations it will be advisable to allow detachments to approach the obstacle at several points. To this end the formation may for a time be broken up. Scrambling will be used more frequently than jumping, and is better adapted to tired horses.”

“. . . Jumping and scrambling must first be practised extended in single rank. The necessary obstacles (ditches—wet, if possible—walls, logs, hurdles, sunk roads, or pits) must be available on the drill ground. Places where horses can be taught to scramble must be sought in the neighbourhood of the garrison and made use of.

“Jumping in single rank must be succeeded by jumping by troops, in line, and finally in columns of troops.

“The squadron leader gives the command ‘Ditch!—Jump!’ or ‘Ditch!—Scramble!’ (‘Wall!’ ‘Hedge!’ etc.) In column of troops the leaders repeat the word of command.

“On the caution ‘Wall!’ etc., the troop leaders and front rank increase the pace, so as to give the rear rank room to jump, and for their horses to see the obstacle. Immediately after jumping, the front rank must take up the original pace, and the rear rank close up to its proper distance.

“When jumping in line the squadron leader may increase the distance between ranks by the command ‘Rear rank take ten horses’ lengths’ distance!’ When jumping in column of troops, single rank may be formed when necessary on the word of command ‘Rear rank right and left deploy!’ The troop is re-formed by the command ‘Form two ranks!’.

“Files should be extended for jumping on the squadron leader’s caution, the flank guides giving ground outwards.”

do not distinguish sufficiently clearly between the peace exercises and those intended to represent service conditions, so that, although the principle of the teaching is quite correct, it is not made quite clear how obstacles that are met with on the field of battle should be negotiated.

It is very important, even in the troop, to train not only all under-officers, but also a certain number of lance-corporals in all the duties of under-officers, in order that trained men may be available to fill the gaps that must occur in time of war. The senior under-officers should often be required to command a troop. Such exercises in replacing casualties should be frequently practised during drill. The system of retaining the same troop leaders and flank guides, so useful for inspection purposes, should be finally abolished.

As soon as the troop is sufficiently trained, the squadron is formed. Troop exercises can still be carried out concurrently with the general training.

When drilling with a squadron in close formation, strict attention should be paid to the correct position of the horses, which should have their noses down and backs arched; the *reins should be quite loose*, and turns or wheels effected by the balance of the rider independently of them. This is most important in all drill, and is what inspecting officers should look for

in the first place. If this method of riding is adopted, the leader always has his men in hand. If horses are pulling or excited, with their noses up and their backs hollowed, it is a matter of pure luck if drill is successfully carried out. The expert cannot, however, be deceived in this matter. Men in the rear rank should never be allowed to attempt to fill gaps in the front rank. I consider this to be an extremely dangerous proceeding. The secret of good drill is that the horses should be correctly placed in line, facing square to the front, that a steady advance should be made in the required direction, and that this direction and the prescribed pace should be maintained.

The strictest and most unbending discipline must prevail during drill, and the existing Regulations and instructions should, under all circumstances, be closely observed. Only an iron discipline in drill within the squadrons can neutralise the distracting effects of the rush and turmoil of a fight between large masses of cavalry. Such discipline can only be attained by the thorough training of every individual man and horse, and is in no small degree dependent on the personal influence and example of the squadron leader.

In drill, more attention should, as a rule, be paid to long advances, during which pace and direction are carefully maintained, than on frequent changes

of formation, which are rarely required in war, easily cause confusion, and upset the horses unnecessarily. The squadron should also frequently practise riding behind the squadron leader in column and line, and quickly forming the single rank line without word of command. It should also be able, even in column, to cross country at a gallop. Evolutions at a gallop may be necessary in the face of the enemy, and they are also useful tests of sound training. This latter consideration has given a certain value to the wheel-about of troops at a gallop, which may be practised on suitable ground.

The squadron should learn to adapt itself to the ground in any formation, and to make the best possible use of natural conditions for obtaining cover from any particular direction; it should also be frequently exercised in riding through woods and defiles. I do not think much attention need be paid to a rapid deployment from a defile, as this manœuvre is not as practical as it is generally made out to be; I regard it as a mere drill-ground performance. Nobody would, in time of war, voluntarily traverse a defile when close to the enemy, and risk being forced back into it. If it is necessary to go through, the passage would be secured in the manner which I have already described. A too rapid deployment from a defile usually results in confusion, and would consequently render the tactical value of the manœuvre

a doubtful quantity. On the contrary, *a defile should be passed as slowly as circumstances permit*, and the head of the column should halt at the far end. This is the principle that should be adopted at manœuvres.

As a preliminary exercise for all attacks, and one which should frequently be practised over different kinds of country, a steady, collected advance at the gallop is of great value. The crowning-point of all drill, and of the whole tactical training, is, however, the charge itself, as on it depends the final result of the battle; it should consequently be made the subject of careful and continuous training. Whenever a charge is practised, the objective and the character of the supposed enemy should *always* be clearly indicated, so that each horseman knows whether he is attacking cavalry or firing troops, for his individual conduct will vary considerably according to the circumstances. All charges should be made against a real objective, which may be either stationary or in motion. The squadron commander would learn most if, when attacking cavalry, he could be confronted by real troops. In this case the charge cannot be pushed home, and the squadron must be halted before it reaches the opposing cavalry. Horses, however, quickly acquire this habit of pulling up before they reach the enemy, and the men, who are unconsciously thinking of the forming-up which

is to follow, do not urge their horses on. This renders the value of the exercise somewhat doubtful, and it would be advisable to vary it occasionally by using flags to represent the enemy's cavalry, when the charge can be carried out at full speed.

When charging infantry, the opponent might be indicated by "head targets" or by real troops, as the actual shock can in this case be avoided. The same applies to attacks made against artillery, when real troops may also be used with advantage. If flags have to be used to represent artillery that is being attacked, the extent of the firing-line, and also, if possible, the position of the guns, should be clearly indicated.

In practising the charge against cavalry, stress should be laid on the value of momentum and close formation; it is also desirable that the ranks should be clearly defined, but the latter consideration should not receive too much attention, lest the weight of the charge, on which everything depends, should suffer thereby. The stiffness of the parade-ground must be left behind. When charging firing troops, the main feature should be a long, free gallop, somewhat extended. In all charges care should be taken that no rider allows himself to be crowded out as long as his horse is able to keep up with the rest; the weight and speed of the charge should, however, never be reduced to suit the pace of the slower horses.

The troops should be trained to the conviction that a really successful charge against cavalry *should never end in a mêlée*, but that the enemy will be either scattered, or trampled underfoot by the weight of the charge. When practising the charge, therefore, it should not as a rule be allowed to end in a *mêlée*, but the squadron should drop into a trot after encountering the enemy. It will then generally conform to the movements of the supposed enemy, who will previously have received his instructions, or act according to the decision of the umpires. If the opponent gives way, the squadron commander should act in accordance with the Regulations; but if, on the other hand, the attack made by the squadron is considered to have failed, it should be made to retire at full speed along the line of attack until the enemy relinquishes the pursuit. As soon as the charge lapses into a trot, the men should trail lances without further orders. If, as an exception, a charge is to end in a *mêlée*, the directions laid down in Regulation 233¹ should be followed; it will, however, be found advisable to practise this exercise independently, and not as part of an engagement.

In a pursuit those men who cannot keep in

¹ "... The *mêlée*, pursuit or retreat, must be carried out according to the object of the exercise or the decision given. In the *mêlée*, ranks break up on the command 'Single combat!—Engage!' and the men of either side ride through each other practising the thrusts. . . ."

touch with the enemy must form themselves quickly into detachments. Troops must be trained to do this, and all officers should see that it is carried out.

When attacking infantry, the enemy's firing-line, if represented by real troops, should be passed at a foot pace, and the charge should then be resumed against the hostile forces farther in the rear. As soon as it may be assumed that the fire-zone has been crossed, the troops should rally, even without any trumpet-call being blown. This requires continual practice. If there is only *one* line of infantry, the squadron should engage in single combat after the charge.

The squadron should be carefully trained to rally quickly from the widest dispersion. The "Squadron Call" should be frequently used, so that the men will recognise it easily. In connection with the rallying of the squadron, exercises should often be made with the squadron still unformed (60),¹ but a squadron that has just been collected after a *mêlée* should not immediately be led against a fresh enemy. That is a peace manœuvre which, as I have already pointed out, does not take into account the moral factors of real war, and is only likely to lead to a false idea of the necessity for reserves.

¹ "The squadron should be able under all circumstances and in any kind of country, even when unformed, to carry out quickly and accurately any regulation movement, and must remain always under the control of its leader, even when broken up."

In addition to the tactical training of the squadron, the men should, during the drill period, be perfected in the use of the lance. The best way to do this is to give them plenty of practice in tilting at objects while moving at varying paces, and also to train them to ride independently. The best foundation for single combat is sound instruction in equitation, which enables the rider to have his horse well collected under him, and to turn it by the movements of his body without using the reins, and to wield his lance without affecting his control over the horse. Tilting-yards should be arranged on the drill-grounds and the men should practise moving about at different speeds between the various objects and thrusting at them from both sides. In this exercise they should not always be on the same rein, but should be able to alter the direction by change of balance without touching the reins. Single combat on the lines of the Regulations laid down for the use of weapons should only be practised very occasionally, if at all, as it gives the men an absolutely false idea of mounted combat, and accustoms them to avoid the adversary, which should, of course, never be done in reality.

During the period of squadron drill the whole squadron should practise dismounted action with mobile and immobile led horses, until it becomes thoroughly efficient in the work of attack and

330 TRAINING OF CAVALRY IN PEACE

defence ; but the attack should always be regarded as the more important of the two rôles.

The exercises should be carried out in accordance with some simple tactical situation, in order that the commanding officer may be obliged to direct the operations according to the principles involved. The enemy can be best represented by head targets or by real troops, so that the men may at the same time get some practice in picking up marks and aiming. The supposed enemy should have a certain freedom of action, and he should be able eventually to take the offensive ; he should never consist only of targets, and the engagement should never be conducted according to hard-and-fast rules, but the under-officers and men should be encouraged to adapt themselves to fresh conditions, and to act on their own initiative when necessary.

In dismounted action the officers should frequently fall out. Dispositions as to the position and security of led horses should be made with due regard to the tactical situation, and according to service conditions. The bringing-up of the led horses should be practised at various paces, especially at a gallop. The question of carrying lances on such occasions has already been discussed.¹

The tactical training of squadrons should not end on the drill-ground, and with the official

¹ "Reflections on the new Cavalry Drill Regulations,"

period of squadron drill, but should continue throughout the year, and be perfected during field-training in varying surroundings.

Judging distances should be made the subject of continuous study, as it is absolutely essential for successful shooting, and is almost more important than marksmanship. If the range has been correctly estimated, the cone of fire will still cover the ground occupied by the enemy, even though the dispersion of bullets is great. If, however, the sights are incorrectly adjusted, the good shots, who would have correspondingly less dispersion, would yield even worse results than the bad.

The belief should be fostered amongst the men that they can defeat any opponent if they use their rifles coolly and keep up a steady fire. A general impression appears to exist that dismounted cavalry is powerless against infantry; this idea should be discountenanced at every opportunity. The troops should feel convinced that the conditions are actually the reverse; there is no doubt that the cavalry is superior in morale to the infantry, on account of its longer period of service, the smaller proportion of reservists, and the older men in the ranks, as well as the larger number of officers. When it is opposed to second or third line infantry, a well-trained squadron need have no fear of the result of such an engagement, even against heavy odds.

3. *Regimental Training*

Drill in the regiment has for its object the instruction of the unit in those movements and tactical formations which would be necessary in the face of the enemy, the teaching of the squadrons to co-operate as a homogeneous fighting unit, and the training of all commanding officers, and squadron commanders in particular, to make independent decisions and act according to them (116).¹ Regimental exercises should consequently not be limited to the period allotted to them in the "Field Service Manual." Officers and under-officers should be thoroughly conversant with all the Regulation formations and instructions, in so far as they apply to the regiment, before the commencement of that period. After the conclusion of the official period of regimental training every effort should be made to perfect their training, particularly with regard to operations in fresh surroundings. It is not necessary to rehearse, during the exercises, all the evolutions and deployments mentioned in the Regulations; they are all based on the same principles, so that any one who has once grasped these principles can execute every one of

¹ "Regimental exercises are held with a view: to form squadrons into a coherent whole; to train squadron leaders, and teach them to appreciate situations; to prepare the regiment for its duties in larger formations. Dismounted action must also be practised in the regiment."

the regimental movements. On the other hand, all such formations, manœuvres, and deployments as are indispensable in the field should be practised.

It would thus be superfluous to waste time and energy in practising deployment from the regimental mass, as this would, in practice, be only necessary where dispositions had been so faulty as to allow the enemy to attack the force while in formation of assembly. These evolutions were probably only included in the Regulations with a view to their theoretical, and not to their practical advantages. All deployments to the attack formation, however, movements of columns, manœuvring under cover of the natural features of the ground, flank marches protected by a vanguard, deployments in unexpected directions, and, lastly, the advance in extended order, are of very great importance. The exercises should culminate in charges against the different arms, varying tactical situations being assumed.

At regimental training no more drill-book exercises should be carried out than are necessary for regulating the movements of the regiment. The men should be trained to follow the regimental commander without any orders or signals, and to avail themselves of cover against any given direction, as this is a useful preparation for movement on the battle-field, and when the regiment forms part of a larger formation. When

334 TRAINING OF CAVALRY IN PEACE

practising the attack formation, on which, of course, special stress should be laid, an enemy of varying strength and disposition should always be indicated, so as to avoid falling into hard-and-fast methods. For the rest, tactical exercises, under service conditions, and, if possible, with an enemy, should alone be carried out. The tasks should be allotted so as to necessitate variation from the prescribed formations, and so as to frequently alternate mounted and dismounted work, equal value being attached to the two methods of fighting. The hypothetical conditions should be so chosen as to cover as much of the sphere of cavalry action as possible. Most attention, however, should be paid to the battle of encounter in a campaign, as this would most frequently occur in war, and offers the best field for the all-round experience and tactical training of leader and troops.

Only on rare occasions should exercises be conducted by words of command and trumpet-calls, but orders should be transmitted as in time of war. The use of the trumpet and the word of command are liable to produce parade movements that are incompatible with service conditions. Only such calls should repeatedly be used as demand independent action on the part of the squadron leaders, while the "Regimental Call" must be familiar to the whole personnel of the regiment.

In all exercises great stress should be laid on the fact that the squadron forms a separate and independent fighting unit, while its position in the regiment is a matter of secondary consideration. The squadron leaders should be made personally responsible for the maintenance of cohesion in their commands, but should, at the same time, be granted all the freedom of movement that is allowed by the Regulations, and that is consistent with the squadrons maintaining the necessary close formation. From the general views to which I have given expression it will be seen that, in my opinion, the new Regulations have not gone far enough in the direction of granting liberty of action to the squadron leader. They have, on the contrary, restricted this liberty within the regiment more than would appear advisable when the ground and the enemy are taken into consideration. At the same time, the spirit of the Regulations demands tactical knowledge and thorough training from officers of all degrees, and especially squadron leaders and their appointed substitutes, so that they may learn to act on their own initiative. All exercises that entail judgment and decision on the part of the squadron leaders are therefore of value for training their minds quickly to appreciate situations and to arrive at correct decisions. This object can be furthered by practising, for instance, the rapid assumption of the attack formation against a

marked enemy, without any special instructions from the regimental commander.

Tactical exercises may be made particularly realistic and instructive if the enemy, whether marked or formed by other troops, be given complete liberty of action. Unexpected movement on the part of the enemy would then provide the best indication to the officer commanding the regiment as to whether his orders were quickly and thoroughly understood, and as to whether the subordinate officers had learnt to act independently in accordance with his ideas. The commanding officer indicates the general idea of the fight and keeps the reserves at his disposal; everything else should be done independently by the squadron leaders. The regimental commander would at the same time be well advised to get others to set him tasks, in order that he may test and perfect his own knowledge.

I cannot say that I attach much importance to rapid deployment from different formations to meet an enemy that may suddenly appear; they are artificial manœuvres only suited to peace conditions. In time of war it is known from which direction the enemy is approaching; he has already been discovered several miles away, and the troops are disposed in the required tactical formation surrounded by combat patrols. A commander who allows the enemy to surprise him deserves to be tried by court-martial, and

it is not necessary to rehearse matters which lead to this end. I have never met with such a situation during manœuvres. Leaders must be trained to acquire a correct appreciation of tactical conditions, and to use their units to the best advantage, instead of wasting time over purely *pro forma* evolutions that have no connection whatever with the true rôle of this arm on a modern field of battle, and which may be characterised as survivals of the dark ages.

Flank squadrons should reconnoitre towards the flanks without any special instructions to that effect. The regimental commander arranges for the conduct of the advanced scouts, and it will often be advisable to place them under command of an officer or an under-officer. In time of war, combat patrols should consist of smart, well-mounted officers. In peace exercises, all young officers should be trained to carry out these duties.

Squadron leaders should be given opportunities of commanding a regiment of several squadrons, while the senior lieutenants should be allowed the command of squadrons forming part of a regiment. To this end single-rank squadrons may often be used with advantage, and the regiment formed to represent a brigade. This provides, at the same time, an opportunity for preliminary training as part of a brigade, but the movements undertaken should not be too ambitious. The senior officers should also frequently fall out

during drill, in order that all officers may get as much experience of command as possible.

Particular attention should be paid to dismounted work, and the training of the cavalryman for the fight on foot should be carried to the highest possible level. The regimental commander should be continually schooling himself to employ his fighting units in a correct tactical manner, and to issue clear and connected orders for the fight. This is an aptitude which most of the present commanders of cavalry regiments do not possess, owing to lack of training, although it will be found an absolute necessity in time of war. A clear plan should be the basis of all dispositions. As in the case of the squadron, there should always be an opponent indicated. The correct tactical employment of single squadrons, and the seizure by mounted troops of the most favourable bases for attack when the ground allows of such action, are matters of great importance. Every dismounted fight should, on principle, be continued until the object of the engagement has been attained, regardless of the led horses, which must, of course, be suitably protected, and always disposed as they would be in actual war. As in the squadron, the bringing up of mobile led horses, and of immobile led horses by the mounted reserves, should be frequently practised. Offensive tactics in the fight should, of course, be the object of particular attention.

4. *Brigade Training*

The object of brigade training is to prepare the brigade to act either independently or as part of a cavalry division. In either capacity it should be trained for independent missions, and for the battle of all arms. All tactical problems should clearly distinguish between these two rôles, and should present as many typical situations as possible. But in this case, also, most attention should, of course, be paid to the situations arising from the strategic operations of the army cavalry, and, above all, to the battle of encounter developing from march formations. The brigadier would, as a rule, himself set the tactical problems, so as to ensure to the brigade a systematic and comprehensive training that would prepare it for any eventuality. He would be well advised if he occasionally got others to set him problems as a test of his own knowledge, and a preparation for his task of commanding the troops in battle. Stereotyped evolutions should be suppressed in the brigade, but the fundamental tactical principles should be developed. This is the only manner in which the full benefit can be derived from these exercises, for which only a limited time is, as a rule, available. Inspecting officers should emphasise the advantages of this method of training.

Dismounted tactics should receive the same

340 TRAINING OF CAVALRY IN PEACE

amount of consideration as would undoubtedly be their due in time of war. As a brigade, when forming part of a division, is of sufficient strength to undertake a dismounted attack on a fairly large scale, such attacks should be frequently practised. In the case of engagements carried out by independent brigades, the interest should, on the other hand, be centered on the suitable grouping of units, in accordance with the situation, judicious employment of the force, the position and security of the led horses, and offensive action on the part of the mounted reserves. Our cavalry officers are not, as a rule, well versed in this part of their duties. In other respects the same principles apply as for regimental exercises, dismounted and mounted action being practised alternatively or in combination, so as to give horses the rest they require; care must be taken that the latter do not get overworked, but are kept as fit and fresh as possible. The object to be kept in view is the quality of the tactical instruction afforded by each separate exercise, and not the number of exercises or the amount of riding about entailed.

This period of brigade training is intended mainly for the purpose of perfecting the officers, particularly the regimental commanders, in their knowledge of tactics; and the work should consequently be so arranged as to give them as much freedom as possible in their tactical dispositions. It is also well to allow the enemy considerable

latitude in the rôle assigned to him, so that the conditions may be frequently changing, and situations may arise that call for rapid and decisive action.

5. *Divisional and Corps Training*

As I have already said in my book, "Cavalry in Future Wars," training should culminate every year in exercises of the division, for we shall certainly, in the future, have to count on battles taking place in which large masses of troops are engaged. In these exercises on a large scale it is even more important than in brigade training that all officers should be well versed in tactics, and that the troops should be accustomed to adapt themselves to any tactical conditions.—Parade manœuvres should be absolutely prohibited during the divisional training, as the time available is far too valuable to be so expended. It would, on the other hand, be of great advantage to occasionally carry out the exercises in fresh localities instead of on the too familiar exercise ground.

The tactical exercises selected should include the different phases of cavalry work. Distinctions should be drawn, as in the brigade exercises, between strategic operations and battle dispositions, and as many typical situations as possible of these two kinds should be created. The junior officers should frequently be called upon to take

independent action. The battle of encounter during operations is a matter of more importance at these exercises than at brigade and regimental training and should receive more attention, but attacks on an enemy in position should also be repeatedly practised. I am of opinion that such attacks would be very necessary in time of war, and our cavalry leaders have not had much experience of them. On the other hand, but few lessons, either for strategic operations or battle, can be learnt by pitting one formed division against another. Such operations generally descend to the level of formal encounters in which the events of reconnaissance are, as a rule, disregarded and the position of each unit is arranged before the enemy has even been discovered, much less observed. It is far more instructive to let the battle develop naturally, as will often happen in war, from the march, if possible in detached columns, or from a disposition of the division by groups on the field of battle; in the former case emphasis should be laid on the strategic object which the fight is undertaken to attain. There is not much to be learnt from an engagement that has no connection with a general situation. Such do not occur in real operations, and are only calculated to convey a false impression of war, and thus to defeat the objects of training.

Within the above limitations, close attention

should be paid to the proper use of mounted and dismounted action, and to the correct employment of the other arms attached to the division. In the case of an enemy in position, the dismounted attack should be undertaken by divisions, or even by corps, in order to practise such operations on a large scale, a matter which has, up to now, been entirely neglected. When the division acts as cavalry in the battle of all arms, the required tactical conditions should be represented as closely as possible, and troops of all arms, especially infantry, should be included in the manœuvre. Such battle training should not consist only of charges, but the employment of fire action on the flanks and rear of the enemy should be also studied, as such operations would frequently be necessary in time of war. It will be well to indicate, if only with flags, the reserves and columns behind the enemy's fighting-line, and the dispositions of his field and heavy artillery. In all exercises the cavalry must take the enemy's fire into consideration, especially during the advance and approach, and should not be considered intact when it has been for some minutes under artillery or machine-gun fire. We should learn also to take long-range fire into account, and not to expose ourselves to unnecessary loss, for cavalry cannot be replaced in time of war.

In cavalry-division exercises the enemy should be always capable of manœuvring, and his

strength should vary. He should also be allowed a certain latitude of movement. To produce a spectacular battle-piece by restricting the movements of the enemy should not be allowed, but any given situation must rather be allowed to develop itself naturally on the lines of real warfare. The directing staff should only interfere where operations are likely to extend beyond the available limits of ground, or where the object of the exercise is likely to be defeated.

A cavalry corps is so large a body that no exercise grounds are large enough to allow of its combined action without the introduction of unnatural conditions. At the most, a charge as in a great battle, or a dismounted attack on a position, can be carried out. It will then be impossible, as a rule, to reproduce more than single phases of an action. I do not therefore attach much value to these large corps exercises in the limited areas available for them. The one manœuvre that is of great importance when dealing with such large formations, viz. the co-operation of two divisions advancing on different lines towards a common battle-field, cannot be practised unless the conditions are unusually favourable. None of our exercise grounds are, in my opinion, large enough for such a manœuvre, on account of the long range of artillery fire and the breadth of front which the two divisions would have to assume on entering the zone of

fire of an enemy of approximately equal strength. If, on the other hand, considerations of limited space were to be allowed to induce an advance in close formation, this would produce conditions entirely opposed to those of actual war.

I do not consider that exercises on so large a scale are really necessary. Whoever is capable of commanding a division under any conditions, can also lead a corps into battle. It is merely a matter of issuing instructions to the divisions to carry out certain tasks according to the general intentions of the commander, who will himself maintain control of the reserve. Detailed dispositions are a matter for the division commanders and can best be learnt during divisional training.

If, however, a cavalry corps *is* concentrated, its training should be conducted on the same lines as that of a division. Dismounted attacks should be practised on a large scale, so as to allow all commanding officers to avail themselves of the rare opportunity of handling a large number of dismounted men in the field, and of dealing with the various tactical groups, such as led horses, artillery and engineers, reserves and reconnaissance units, in connection with a strategical situation on a large scale. An attack on a hostile force in position, or a raid against hostile communications, are the operations which will best lend themselves to this end. The fight should, as far as possible,

develop from the march, and for this purpose all available roads in the neighbourhood should be made use of as far as is consistent with judicious marching.

Corps exercises should therefore be carried out, if possible, in real country, where they can be directed according to service conditions. It would probably be well to combine them with large manœuvres of all arms—in Germany, for instance, with the Kaiser Manœuvres—but it would be a mistake to limit the action of the cavalry corps to the decisive battle and to bind it too closely to the infantry columns. It should move freely on the flanks, in the rear and on the lines of communication of the enemy, and should operate regardless of all spectacular considerations in real up-to-date cavalry style, in the spirit of a Seydlitz or a Stuart. The directing staff of the manœuvres should also endeavour to allot tasks to the cavalry that correspond to modern requirements, and should give a free hand to the officer commanding the cavalry, be it divisions or corps. For all cavalry exercises, especially those carried out with the larger formations, are intended, not only to further the tactical training of leaders and troops, but also to fulfil the higher purpose of arousing and fostering courage, the spirit of enterprise, independence, and self-reliance amongst all ranks of our splendid service. This object must never be lost sight of, although in time of peace

it should not be pursued at the expense of the horses.

One of the main duties of all commanding officers is to keep their horses fresh and in hard condition, for sound, powerful horses, full of life and strength, are absolutely essential to the offensive action of cavalry, and in critical times will allow of extraordinary demands being made upon them.



Third Part.

ORGANISATION

MORE than once have I had occasion to repeat that I do not consider the organisation of our cavalry a particularly happy one.

In war, the cavalry will move in advance of the army and on its flanks, concentrated for the most part in large independent masses; only fractions of it will be attached to the infantry divisions, and these, owing to their numerical weakness, can hardly be counted as separate units for tactical purposes. On the day of battle alone, will all arms co-operate in the general engagement.

In time of peace, on the other hand, the cavalry, with its present organisation, must confine itself almost entirely to carrying out the duties of divisional cavalry. Once a year only, are various detachments concentrated for the purpose of practising the real rôle that cavalry will have to play in war.

With a view to mitigating this evil, the question has frequently been raised in certain

quarters as to whether it would not be advisable to decide in peace the composition of those cavalry divisions which are to be formed in war. Such procedure would, I fear, create a gulf between army and divisional cavalry, besides opening the way for a great deal of red-tapeism, and cannot, on that account, be regarded as a satisfactory solution of the problem.

In my book "Cavalry in Future Wars" I proposed that the cavalry regiments should be completely detached from the rest of the army corps and formed into "Inspektions" (corps) and "Unter-Inspektions" (divisions), which could be exercised independently every year, and that the divisional cavalry and, when necessary, the army cavalry, required by the army corps, should be provided by the different regiments annually in rotation. There is no doubt that such an organisation would correspond to the employment of this arm in war more closely than our present one, which is the survival of a time when conditions and ideas prevailed which no longer hold good.

It cannot, however, be denied that the practical difficulties that stand in the way of such a transformation of an existing organisation are great, nor must the weight of objection which would be raised against any attempt at a change be under-estimated. Army Corps Commanders would see in it a *capitis diminutio*, and on all

sides the fear would be entertained that the cavalry might lose touch with the other branches of the service. The case of the field artillery would doubtless be cited, and the fact that in that arm the conditions are the exact reverse of what they are in the cavalry would be completely overlooked ; for the latter are, practically, always obliged to act independently, the former never. No attention would be paid to the fact that, during those years when the cavalry performed its most glorious deeds and was most successful in intervening in the combat of all arms, its organisation was identical in principle with that which I have proposed.

Be that as it may, I do not think that such an organisation could now be introduced, in spite of the fact that it would be an invaluable adjunct to the training and strategical grouping of the cavalry.

All the more, then, should it be insisted that whatever organisation is to exist in time of war should be made to correspond with the actual rôle that the cavalry is expected to carry out.

At the present time we group our cavalry into divisions, each containing three brigades of two regiments. I do not know whether a similar formation is provided for in time of war, but the Regulations, at any rate, contemplate its use as a general rule. I have repeatedly urged, and my arguments have never been refuted, that

such a division is much too weak for the tasks which would fall to its share on active service.

This is indirectly acknowledged by the authorities, for in the new Regulations they assume the necessity of strengthening the cavalry divisions by detachments of cyclists, and even of infantry in carts.

If we consider the multifarious purposes for which these already weak divisions would have to supply men, e.g. for reconnaissance and screening duties, escorts for signal stations, reporting centres, and communications with the rear, and at the same time take into account the wastage inevitable on the march and in battle, and then realise that such emasculated divisions would doubtless be forced to attack an enemy in position, who may consist not only of cavalry, but also of strong companies of cyclists, little doubt will remain that my contention is a well-founded one.

The evil is accentuated by the fact that by the new Regulations the number of men available for the firing-line in dismounted action is considerably reduced.

In further support of this view I shall endeavour to show that weakness exists not only in the division as a whole, but also in its component parts. It will frequently be found necessary to detach a brigade for some particular mission, but what fighting strength has such a

brigade after the detachment of all the necessary details? This question should be considered from the point of view not only of the purely cavalry fight, but also of dismounted actions, such as the independent conduct of a battle of encounter or an attack on an entrenched position would generally entail. To ensure success in a dismounted attack requires a twofold or even threefold superiority over the enemy, and, in addition to this, the led horses have to be guarded and reserves kept in hand. What, then, can be expected of a weak brigade, such as we now employ, except that its field of action should be reduced to insignificant limits? I am therefore convinced that, if any real work is to be achieved by a brigade, its war strength should be raised to three regiments. A tripartite formation possesses undoubted advantages under any circumstances, and would go far towards regenerating the somewhat antiquated system that still prevails, and would facilitate the adoption of more up-to-date tactical methods.

If, in spite of this, the authorities should still adhere to the existing composition of cavalry divisions, it would evidently be with the object of surmounting the present difficulties by occasionally forming cavalry corps. In my opinion this solution of the question is not an entirely happy one. It does not help towards strengthening the very weak brigades, while one strong division

under a single command is of far more use than two weak ones. The command of a corps, too, is not such a simple matter as is usually supposed, unless it has been practised in peace time. The fact of appointing an officer to command two divisions that have been linked together is not enough. A very large staff is required, and the Corps Head Quarters must be provided with ammunition, supplies, and technical appliances for communication, unless it wishes soon to find itself absolutely dependent on the divisions, and obliged to conform to the particular and possibly quite unsuitable dispositions that they have made. These difficulties do not appear so formidable in peace time as they would on service, but the military history of all ages teaches us that friction in time of war is always much greater than is expected; consequently every opportunity of removing the possible causes of such friction should be eagerly seized upon.

The question of supplies and reserve ammunition will also be a more fruitful source of difficulty than we are apt to suppose. It is my firm conviction that cavalry can neither exist on the supplies that can be requisitioned in the theatre of war, nor obtain what it requires from the supply columns and depôts in rear of the army; nor, indeed, will it be able to replenish its ammunition from the army reserve without interrupting the course of its action. There can be

no two opinions on this matter. Unless the cavalry is given the necessary transport organisation to correspond to the conditions of modern war, *it cannot be expected to justify the hopes of those who so confidently expect great performances from it.*

In the arrangements for concentration the existence of a certain number of army cavalry units is no doubt of great advantage, especially if their supplies need only be arranged for during the period of concentration, and not during further operations. But, if these units prove individually unequal to the task confided to them, these advantages dwindle away to nothing, or even develop into disadvantages.

The personal equation will play a very important part in this matter, and, in my opinion, offers another good reason for limiting the number of divisions. Born cavalry leaders are *rarae aves*, and the same value cannot be attached to all cavalry generals who may happen to be of equal rank. The more force that can be concentrated under the hand of one able man the better. All the above considerations induce me to believe that my frequently expressed views regarding these *desiderata* still hold good. For war, as well as for the training of the larger formations, brigades of three regiments should be formed, and the strength of cavalry divisions should vary according to the importance of the strategical

missions entrusted to them, while they should be provided with the necessary supply and transport service, consisting of fast and handy motor and waggon columns. Cavalry divisions consisting of nine regiments would probably be strong enough for most purposes. Tripartite formation facilitates tactical dispositions and the detachment of reserves. If corps are to be formed for a mission of a critical nature, they should be equipped with everything necessary to enable them to operate independently.

Training in time of peace should be based on war conditions, and the six-regiment divisions should be definitely abandoned. It will be found that four-gun batteries are a necessity in war, and the batteries with the army cavalry should be so constituted, at all events, for manœuvres.¹ I do not, however, attach as much importance to reducing the number of guns in the battery as to the arrangement of batteries in groups of three, with the divisions.

I have repeatedly stated that I consider our cavalry to be, of itself, too weak. The more I study modern warfare, the more convinced do I feel that the value of the arm, when handled according to modern ideas, has increased. In view, however, of the strong prejudices that exist against any appreciable increase in this arm, the heavy cost entailed, and the lack of a proper

¹ The German batteries have at present six guns.—TRANS.

education of public opinion in the matter, I am obliged to assume that such an increase is, for the moment, an impossibility. We are thus forced to look around for other means of strengthening the cavalry, or, at any rate, of increasing its tactical value.

The employment of cyclists is, in my opinion, the only means to this end. The weak divisional cavalry will only be able to carry out its heavy duties if a portion of its orderly and reporting work can be undertaken by cyclists, and if cyclist detachments can be used to form collecting stations (cf. p. 32), and to assist in screening duties. The question then arises whether it would not be well to attach a cyclist battalion to every army corps, or to supply the Jäger battalions with serviceable cycles and train them to these duties. This would enable them to afford opportune support to the divisional cavalry without losing any of the peculiar value that these battalions already possess.

Special detachments would have to be created, it is true, for the cavalry divisions, but it might be possible to provide the necessary means for this. At any rate, it is certain that the cavalry divisions require more fighting strength for dismounted attacks, and, even though the establishment of the division were to be raised, such further support would still be very desirable. The successes of our cavalry must be rapid and

decisive, and to this end the employment of considerable fire power will be found necessary.

These cyclist detachments should take part in all the tactical and reconnaissance exercises of the cavalry, in open country as well as on the exercise grounds, and their presence should help to accelerate the adoption of more modern ideas as to the employment of the arm. I therefore hold—especially when we take the dispositions of our probable opponents into account—that the formation of cyclist battalions is a necessity to which we have too long been blind.

It is also very important that we should provide an adequate reserve of horses for our cavalry. In a future war we shall certainly have to count on losing a very great number of horses, and we should seriously consider the question of providing suitable animals to replace these losses. The number of riding-horses in the country is decreasing every year, and I am afraid that the growing use of the motor-car will tend to still further deplete the supply of good, active draught horses which are capable of being ridden in time of need.

The home market should, in the first place, be encouraged in every way, and remount premiums should be offered by the State so that horse-breeding may become a remunerative industry. The question might also be considered of introducing a system similar, for instance, to that in

force in Switzerland, where the reservist belonging to a country district receives, on completion of his service with the colours, a trained riding-horse for his own use, the State retaining the right to inspect the horse and to use it when required. Such a system would naturally entail heavy expenditure and present many difficulties, but I believe that it would be possible to find a way in which it could be rendered feasible. The Government could hardly refuse to do what is necessary to make good the wastage of horses that is inevitable in time of war. It is imperative that some steps at all events should be taken to prevent our already weak cavalry from falling too far below its numbers in war.

Even now large purchases of horses would be required to bring the cavalry up to war strength, and, as such horses are usually unbroken to the saddle, the cavalry would labour under disadvantages which would seriously affect its tactical value. A remedy is urgently needed. The best course would seem to be to allot, in the first instance, the bulk of the purchased horses to the army cavalry, and to provide the divisional cavalry with as many trained riding-horses as possible. I have already given reasons why the duties of the latter must be regarded as particularly important. To be of any use for service all these horses must go by themselves, which only properly trained and obedient horses will do. The weak-

ness of the divisional cavalry renders it scarcely able to fulfil all the demands made upon its strength, and allows of no opportunity of relieving some of its horses from independent work until they have reached the necessary standard of training. The army cavalry, on the other hand, does not require so many horses for independent duties; the purchased horses might therefore be used at first for such work as would not require a high standard of training, such as escort duty with signal stations, supply columns, or baggage, and similar duties of a more or less defensive nature. At the same time, they could gradually be trained to real cavalry work. If placed in the squadron, they should be in the rear rank in a charge. Though there are many attendant difficulties, they can be more easily surmounted in the large cavalry mass than in the divisional cavalry.

In any case, the purchased horses will be a burden to units, and the question should be considered whether it might not be advisable to prepare them to some extent in peace for the duties they may be called upon to perform in war. Specially selected remount riders might, under proper supervision, give them a little elementary training under the saddle. This plan would indeed entail considerable expense and would certainly be difficult to carry out. All these questions must, however, be brought to

notice, as upon their solution will depend the efficiency of the cavalry, and upon the efficiency of the cavalry may hang the fate of armies.

The more difficult the conditions under which the cavalry must labour in war, the more important is it that its training should be brought to the highest possible pitch of perfection in peace. As I have already emphasised, this cannot be fully guaranteed under existing conditions. Every effort should therefore be made to train the troops strategically and tactically with the organisation that they would actually have in war, and to conceive and carry out exercises which will represent service conditions as closely as possible. Care should, on the other hand, be taken that the training is of a uniform and consistent nature. A single mind and will must dominate the whole, both as regards the training itself and also the methods in which it is conducted. We can still see at every turn, even in our latest Regulations, the divergence between the old school of thought and the new, and, in spite of all endeavours to bring about a progressive development, we find several sections in the Regulations that betoken failure to adapt existing principles to modern ideas and to realise to the full the requirements of modern warfare.

I believe that these objects can only be attained by extending the powers of the Inspector-General of Cavalry and of the Inspectors, and by allowing them to exercise more influence

at least upon the purely technical training of the troops.

The sphere of activity of the Inspector-General is at the present time very much restricted, and is, in fact, limited to exercising control over the cavalry division training and the reconnaissance exercises. Should he desire reforms, he cannot initiate them in the troops themselves, but must begin by building the roof of the house, and must leave the foundations to others, these others being in many cases officers who have been trained in old-fashioned schools and are unable to throw off their antiquated ideas. It frequently happens that they do not even belong to the cavalry, and are consequently quite incapable of fully grasping the technicalities of the arm, while they naturally adhere to the views in which they have grown up. The Inspector-General should, in conjunction with the Army Corps Commanders, undertake the conduct of training on uniform lines, and only those officers should be appointed as Inspectors who thoroughly understand the arm and are modern cavalrymen in the truest sense of the word.

The relations between the Inspector-General and his assistants and the Army Corps Commanders should, however, be so regulated that, while the responsibility of the latter as regards the training of the three arms in conjunction is in no wise restricted, the former are yet enabled

to exercise on the technical and purely cavalry training that influence necessary to ensure uniformity of method throughout the service.

In order that instruction in equitation may be standardized, new Regulations should be issued determining the course of training to be followed, and the methods to be adopted, as there is at present no safe guide in this direction. The riding-schools, which should be placed under the jurisdiction of the Inspector-General, should see to the establishment of such instructional methods on a sound basis.

Army Corps Commanders, Division Commanders, and Inspectors, acting in concert, would provide for all tactical instruction in accordance with principles which should be laid down in a separate section of the Regulations.

Instructions for field-training might most suitably be issued by the Supreme Command, and could be elaborated by the Inspector-General, working in conjunction with the Chief of the General Staff. Such instructions would be binding for all units, even for army corps, while the Inspectors would see that they were properly observed. The latter would also regulate, and possibly direct, the staff tours and cavalry staff rides. On the other hand, Army Corps Commanders would have the right to inspect all these branches of training. Finally, the responsibility for making all the necessary arrangements

for the larger cavalry reconnaissances and tactical exercises should rest solely with the Inspector-General of Cavalry, whose single mind and will must work towards establishing uniformity of instruction.

It seems to me that there still remains, within these limits, plenty of scope for individual initiative.

It cannot be denied that the organisation I have just described, which in a way places the cavalry under two masters, is open to objections, and may be the cause of some friction; but I see no other way of obtaining the necessary uniformity of training without making radical alterations in our present peace organisation. I believe also that the various authorities could quite well work together harmoniously, if the general instructions clearly stated the objects to be aimed at, and indicated the methods whereby leaders and troops might attain them. The Inspector-General would, in any case, remain the chief authority on cavalry training as regards equitation and the use of weapons, a state of affairs that can only be regarded as eminently desirable.

One other duty would fall to the Inspector-General—namely, that of keeping himself informed of all contemporary events relating in any way to cavalry work in other countries, and of drawing the attention of the troops to important matters

in this direction. The General Staff, on the other hand, acting in conjunction with the Inspector-General, should place at the disposal of the cavalry all the material of military history necessary for its instruction.

At the present time our officers know but little of foreign armies and their cavalry, and the historical equipment of the officers' corps is but a meagre one.

It is hardly necessary to mention that if the Inspector-General of Cavalry is to carry out the duties outlined above, he must be provided with a much larger staff than is at present the case. He requires, in my opinion, at least one Chief of the Staff, one other General Staff Officer, two aides-de-camp, a registrar, and the necessary clerks. I believe that the expenditure here incurred would be thoroughly justified.

Conclusion

IN the preceding pages I have presented, in a collected form, those views on the organisation and training of our cavalry which I have often advanced before, and have further developed them in the light of modern experience. It is true that the authorities have lately issued a new Field Service Manual and new Drill Regulations, besides introducing the new carbine and increasing the amount of ammunition carried, while several new cavalry regiments have recently been created. But here, it seems, the development in our branch of the service has come to a standstill. All the more necessary, then, is it for us to combat this indolence, and to draw attention to those matters where defects still exist, and where progress is imperative, if we would place our army on a sound footing and ensure success in war.

It is more than possible that my views may meet with much opposition; but I am convinced that they will also receive much active support in the ranks of the cavalry and in the service at large. Developments now in progress guarantee me this support. Slowly, indeed, but none the less surely,

have these views gained in popularity; many changes that I suggested and planned have been carried out, and I look hopefully to the future. Now that I am about to take up other work I have felt it my duty to point out once more the goal towards which we should strive; that is how these chapters came to be written. It is for the rising generation to judge of the correctness of my views, and it is to them that I dedicate this work, with every confidence in their verdict.

Let us, then, be neither dazzled nor spellbound by the glamour of a past which can never be recalled. Let us rather turn our eyes towards the dawn: to the new era of fresh demands, new resources, and wider spheres of action. Surely the future will contain for us opportunities as glorious as ever fell to the lot of our ancestors! In a certain sense, indeed, the brave days of Seydlitz are gone for ever; no battles of the future will ever be won as he won his. But his spirit must still inspire us to strive towards great ends, though we work under changed conditions, and with the resources of our own times.

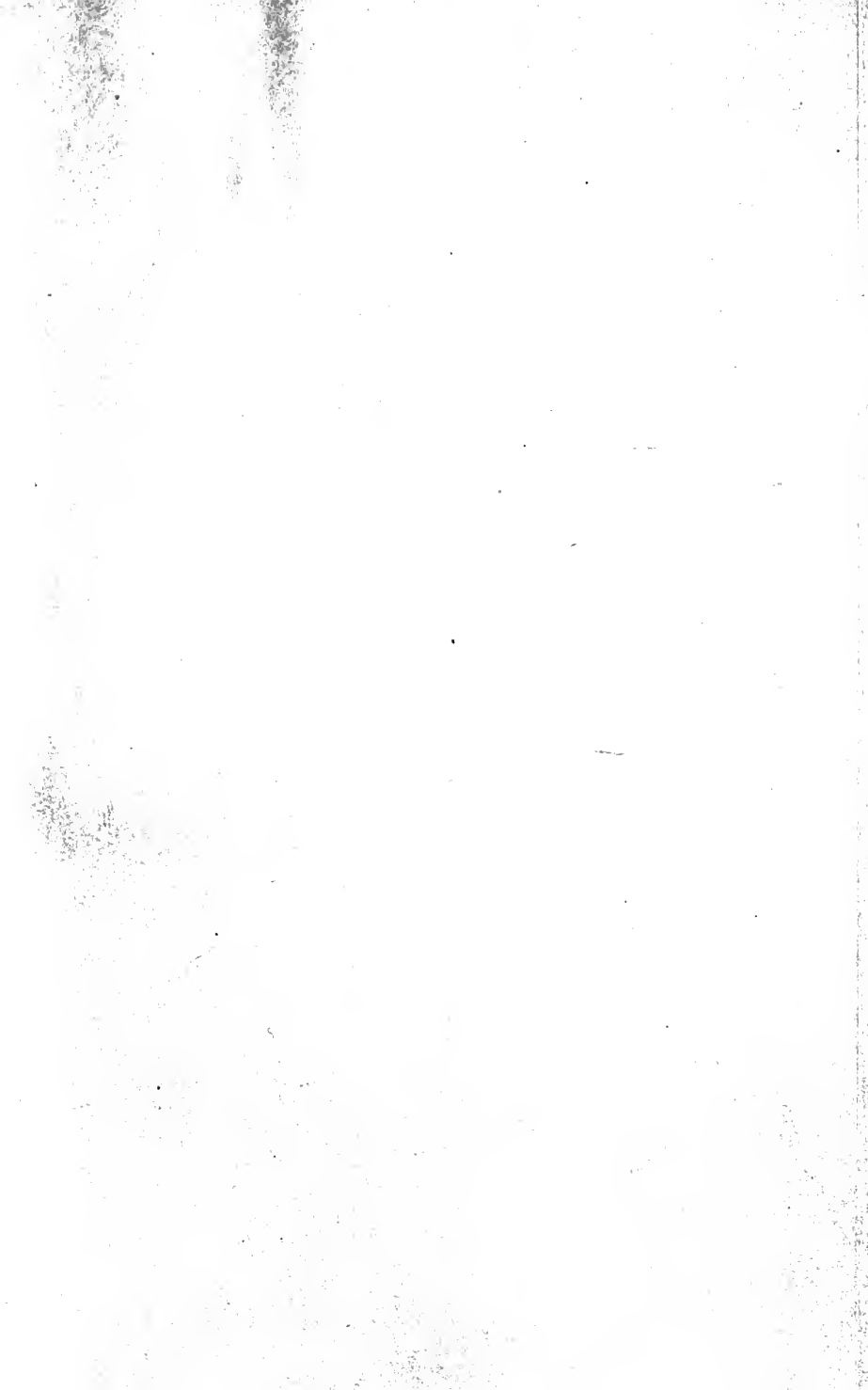
The rôle of our day is a strategic one. In spite of the great changes which have taken place in the armaments and the armies of modern Europe, we can still look to men like General Stuart for brilliant examples of what cavalry should be able to accomplish. Our cavalry is passing through a period of ferment and confusion; the

past, indeed, with its thousand memories and ideals, still lives, but a new horizon has opened out and draws us onward with magnetic force. Let us hope that the period of indecision will soon come to an end, and that our young cavalrymen, and those who are still young in dash and spirit, may press forward resolutely towards the new goal, remembering always that great achievements are the reward only of hard and faithful labour, and that great ends can only be reached by strength and courage.

Let those who have at heart the development of our cavalry on modern lines take as their watchword :

“ Per aspera ad astra.”

THE END



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